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Original Articles

THE PREVALENCE OF CANCER IN THE PHILIPPINE ISLANDS.*

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MANILA, P. I.

From a perusal of the literature on cancer, one is led to believe that carcinoma is either very rare, or does not exist at all in tropical and subtropical countries. To show that this is not the case, in the Philippine Islands at least, is the purpose of this paper.

As a reason for the non-existence of the disease in tropical countries, is given the fact that the people subsist practically on a vegetable diet. They live almost entirely on rice and starchy tubers, varied, when possible, with, perhaps, a little fish, shellfish, or other sea food. The Filipino is not a vegetarian by choice, but is forced to be so of necessity. His consumption of meat is only limited by his ability to buy it. The vast majority practically never taste meat. The middle class eat a limited amount of native pork, while the wealthy class, principally confined to the larger cities, consume as much meat as most other people.

A great improvement in the general well-being of the poor native when changed from his accustomed diet to the more substantial one issued by the United States Army, with a reasonable meat component, was noted by not a few in the government service during the early days of military occupation.

Rayburn says "Cancer is not known in Borneo," yet it exists in the southern portion of the Philippine Islands, cases having been reported as far south as Palawan. In 1902, there were eleven cases reported from Bohol. The southernmost island of the Philippine Archipelago is Sibutu, the northern end of which lies some twenty miles from British North Borneo, and the latter can be distinctly seen from the island of Sibutu on a clear day.

While it is true that the present meager data on the subject would indicate that the percentage of the prevalence of the disease gradually diminishes as one proceeds south from Manila, yet this can be accounted for by the lack of authentic information from these parts and that the country is not so densely populated.

The following statistics are taken by kind permission from Dr. McDill's clinic, St. Paul's Hospital and Free Dispensary, Manila:

Since the establishment of this hospital, April 8, 1905, to Feb. 8, 1908, covering a period of two years and eight months, there have been admitted to the wards 4,284 patients. Of this number 48 were suffering from carcinoma, as follows: Tongue, 1; face, 1; breast, 7; cheek, 8; cervix uteri, 9; eye, 4; inferior maxillary, 2; buccal cavity, 5; larynx, 1; pancreas, 1; penis, 1; rectum, 2; stomach, 4; leg, 1; and lip, 1.

There were 17 admissions for sarcoma during the same period, as follows: Pancreas, 1; ear, 1; mastoid, 1; parotid gland, 2; metatarsal bone, foot, 1; neck, 4; femur, 1; tibia, 1; cranium, 1; orbit, 1; and testicle, 3.

There were refused admission, as being too far advanced for any treatment, 35 cases; 7 of these suffered from carcinoma of the cervix uteri, 8 from carcinoma of the breast, 12 from carcinoma of the tongue, 7 from sarcoma of the neck, and 1 from sarcoma of the femur. Of the 4,284 patients seen 25 suffered from sarcoma and 75 from carcinoma, or, in all, 100 cases of malignant disease, being respectively 0.0058 and 0.0175 per cent., or 0.0233 per cent. of malignant disease.

There were treated in the Free Dispensary during the same period 5,668 cases, and but 11 cases of carcinoma and no sarcoma were recorded. These 11 cases are not included in the foregoing, as the records are not sufficiently reliable to be considered.

It is believed that only from the percentage of those examined for admission can one get an idea of the frequency of the disease, as these figures are absolutely accurate.

Of the cases which found their way into the hospital, 26 were operated on, but in only 12 was there any hope of permanent relief, the rest being palliative in character. All of the cases of cancer of the uterine cervix were hopeless when first seen. The ages of these cancerous patients, under 40 years, so far as ascertained, were, according to the location of the disease, as follows:

Cervix uteri: One, 25 years; three, 30 years; one, 36 years, and one, 38 years. Rectum: One, 37 years. Stomach: Two, 24 and 30 years. Breast: One, 28 years; and eye, one, 25 years.

The statistics of the Board of Health for the Philippine Islands show the following deaths from cancer in the city of Manila for the year ending Dec. 31, 1907:

Buccal cavity, 14; stomach and liver, 9; peritoneum, intestines and rectum, 5; female genital organs, 13; breast, 5; skin, 3; not specified, 15—a total of 64 deaths. The population of Manila being 223,542, this would give 0.000286 per cent. of the total population. The total number of deaths from all causes for the year was 7,613, or 0.00852 per cent. of all deaths from cancer.

The reports from health districts outside of Manila were not used, as they were not considered to be accurate enough to be of much value.

In the census of the Philippine Islands, 1903, a comparative table for the year 1902, giving the percentage of deaths in the Philippine Islands and in the United States, states that deaths from cancer (and under this heading for the Philippine Islands, are included deaths from "other malignant tumors") are 0.1 per cent., while 2.8 is given as the rate in the United States.

As an instance of the medical value of this report, it may be mentioned that the death rate under the heading "Nephritis and Bright's Disease" respectively, for the Philippine Islands and the United States is given in the same table as 0.1 and 3.5 per cent. yet the

* Read at the Fifth Annual Meeting of the Philippine Islands Medical Association, Manila, P. I., Feb. 29, 1908.

hospital records will show that nephritis is very much more common here than in the United States!

The report shows 301 deaths from cancer and "other malignant tumors" for the year 1902, for the entire Philippine Islands, and shows that the disease was reported from every province in the Islands but three, during that year. There were 329,671 deaths for the year among the civilized people from all causes.

From several years service in the Insular Board of Health, and the United States Army, I am fully aware of the inaccuracy of reports from the outlying districts. From experience in many of the provinces, from Samar to Ilocos Norte, I feel safe in saying that the 301 deaths from cancer and other malignant tumors in the Islands for the year 1902, could be multiplied by one hundred without exaggeration, bringing the death rate up to about 5 per cent.

Professor Gilman[1] states that two cases of carcinoma were encountered in the first one hundred autopsies done at the Philippine Medical School morgue.

The frequency of cancer as shown by St. Paul's Hospital statistics is due, to some extent, to a rather careful clinical diagnosis, the employment of exploratory operation for diagnostic purposes, the microscopic examination of tissues removed, and the bringing to autopsy of all cases dying in the hospital.

Cancer of the cervix leads in frequency, and seems to occur about as frequently, as compared with cancer of other parts of the body, as elsewhere in the world, while cancer of the stomach seems considerably less frequent. The latter might be explained owing to the bland unirritating nature of the Filipino's diet, and to the fact that the drink habit practically does not exist.

Cancer of the buccal cavity and tongue is frequent, and it is thought to be due in large measure to the irritating effects of chewing "buyo," a composition which is generally used. It is composed of a piece of nut called "bonga," and lime made from oyster shells, and both are wrapped in a leaf taken from a tree called the "betel" (*Piper betle*). The general belief is, that no greater damage results to the chewer than the coloring of the teeth, which are permanently stained a reddish-brown.

But one case of cancer of the lips was admitted to the hospital. No other cases have been heard of, though considerable inquiry has been made. The Filipino does not use the pipe, confining his smoking almost entirely to cigarettes. All the cases here reported occurred in natives of the islands.

Rayburn has stated that the offspring of syphilitics and tuberculous patients and drunkards suffer from cancer more frequently than others, and assuming this to be correct, then it is not unreasonable to believe that the widespread distribution of tuberculosis throughout the islands may, to some extent, at least, account for the prevalence of cancer.

It is thought that the bad hygienic conditions under which the poor class of Filipinos, as a rule, live, ill-nourished by poor and often-times insufficient food, would lessen their resisting powers and make them easy prey to cancer, and that the absence of a better and more nourishing diet, with some meat, contributes to, rather than lessens the frequency with which they suffer from carcinoma.

It is said that people who live much in the open air suffer but little from cancer, yet the Filipino is much given to living in the open air, he being unable to exclude much of it even from his shack of nipa and bamboo construction.

Dr. Dalgetty, who says that he has never seen a case of malignant disease of the mamma in a native of Hindostan, wonders whether the constant presence of malaria in that country has anything to do with it. There is hardly a native in the Philippine Islands who escapes malaria.

The same writer speaks also of the possibility of the light clothing worn, which causes no pressure on the breasts, and the fact that the women are in the habit of suckling their children until the breasts are quite dry, as possibly contributing to the absence of cancer. It is thought such a gland would be less likely to undergo perverted action than one arrested while its function is still in full force. This all seems very plausible, but both of these statements apply equally well to Filipino women, and yet cancer of the breast is as common in the Philippine Islands, if not more frequently met with, than it is in the United States.

Not only all the cases of carcinoma of the cervix, but a vast majority of the cases of malignant diseases of other parts of the body, as well, come to the surgeon too late for hope of a successful operation. In no other country in the world is popular instruction regarding the nature of cancer, not only of the uterine cervix, but of all parts of the body as well, and the necessity of early operation, more needed than in the Philippine Islands.

The medical and surgical staff of St. Paul's Hospital has carried on its little propaganda since the hospital's foundation, and surgical patients are coming to it in ever increasing numbers, now including some of the better class, but most of the cases of cancer, as yet, come too late.

The meager statistics and the inaccuracy of most of those we have at hand make it impossible to show the true prevalence of cancer. The apparent rarity of the diseases, as shown in most reports, may be accounted for as follows:

The people are naturally averse to entering a hospital for treatment, looking on it as a family disgrace to have a member treated in a hospital, even as a pay patient, and I am sorry to say that the Filipino physicians, with few exceptions, foster this belief. The people generally do not submit readily to surgical operations, usually putting off such treatment until too late, and many prefer to die rather than submit to operation. They can not be blamed for this, however, as there were no modern hospitals in Manila before American occupation, and in the only then existing hospital open to civilians, only the few physicians on its staff were permitted to treat patients therein.

Owing to a lack of medical men in the islands, the government has found it necessary to continue to license the "cirujano ministrante." He is an ignorant man, whose only training consists in having served at practical work in the wards of a hospital very much antiquated in its methods. He is productive of more harm than good. There are many others who practice without a license, being collectively styled "mediquellos" and individually under various titles, such as "practicantes," "herbolarios," and "curanderos," all of

1. A Report on the First One Hundred Autopsies at the Philippine Medical School, by Dr. Philip K. Gilman, Biological Laboratory, Bureau of Science and Assistant Professor of Pathology and Bacteriology, Philippine Medical School, read at the Fifth Annual Meeting of the Philippine Islands Medical Association, Manila, P. I., Feb. 27, 1908.

whom cause the patient consulting them (and the great majority seeking relief go to them) to delay in consulting a competent surgeon so long as there is any money in sight.

The very condition of things makes it impossible to secure accurate medical statistics, inasmuch as the great majority of the officials in charge of the municipal boards of health, the source of our statistics, are not possessed of the necessary training, to say nothing of the dearth of medical men in the provinces and their generally poor training.

I had charge of health conditions in Pampanga province, one of the wealthiest and most agricultural, close to Manila, during the years 1903-5. The population of Pampanga is 226,180, and there were but six licensed physicians practicing there during 1903. During the year 1905, there were 7,131 deaths, and but 421 of these received medical attendance. There were during the year 1907, 7,613 deaths in the city of Manila, and of these, 3,324, or 43 per cent., died without medical attendance.

As an illustration of the caliber of some of the men who gather medical statistics, is the following:

Very recently, an American school teacher in a town not far from the railroad was stricken with smallpox. The president of the municipal board of health was sent for, there being no other medical assistance available. He declared the teacher's affliction to be "an act of God" and refused to interfere by prescribing.

In justice to the Government, it may be said that every possible means have been taken to increase the number and efficiency of medical practitioners in the Philippine Islands. "An Act Regulating the Practice of Medicine and Surgery in the Philippine Islands" was passed in 1901. In 1903 the government began sending annually to the United States, selected students to be educated in branches to be selected by themselves, at the government's expense, and some of these choose medicine. In December, 1905, Act 1415 was passed, providing for the establishment of the Philippine Medical School in Manila, where medical education of a high standard can be had free by all who comply with the requirements governing admission.

In April, 1907, free scholarships were provided for, with the object of defraying the student's personal expenses, one from each province, the students to be selected by competitive examination. Each scholarship student who graduates must either accept government appointment, or return to his province and practice medicine and surgery therein, for a period at least equal to the time of his scholarship tuition.

The first academic year of the Philippine Medical School opened June 10, 1907.

CONCLUSIONS.

In conclusion it may be said:

1. Cancer is not confined to temperate climates.

2. It is believed that cancer exists in the Philippine Islands to a greater extent than in the United States.

3. The measures now being taken in other more enlightened countries to warn the people of the necessity of early diagnosis, and early radical surgical treatment in this disease, should be adopted here.

4. The disease is of sufficient importance in the Philippine Islands to warrant an effort being made to obtain better statistics in the future.

There is no doubt that the Philippine Medical School morgue will help us out greatly in this matter in the future.

THE CAUSE OF MILKSICKNESS OR TREMBLES.*

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OCCURRENCE OF THE DISEASE IN THE PAST.

A peculiar disease, now all but forgotten both by physicians and the general public, prevailed extensively in certain sections of the United States during the years of pioneer settlement. This disorder was known under a great variety of names, but was most commonly referred to as milksickness, from its apparent connection with the use of milk and milk products. A singular feature of the disease was its geographic limitation, the states of Ohio, Indiana, Illinois, Kentucky and Tennessee covering the area chiefly affected. Milksickness has never been known east of the Alleghanies and there is no record of its occurence outside of the United States. The medical journals of the Western States, in the period of from 1840 to 1860, contain numerous articles on the disease, but coincident with the clearing and cultivation of the land milksickness has tended to disappear and, except for its sporadic appearance in certain localities, has become practically extinct in those states in which it was once a barrier to settlement. Cases, however, have occurred in Illinois as recently as 1904,[1] and six deaths were reported from this cause in Macon County, Tennessee, in April and May, 1907.[2] A bibliography of the earlier articles on milksickness has been given by Schuchardt.[3]

Only the chief symptoms of the disease need be mentioned here. There were usually persistent nausea and vomiting, which led to the use of the name "sick stomach" in some localities. Obstinate constipation was an almost invariable accompaniment of the malady. A peculiar odor of the breath, usually described as "sweetish," was commonly noted and was regarded as highly characteristic by those having most experience with the disease. Muscular weakness, abdominal pain and other symptoms were more or less frequently reported. In the more severe cases great prostration occurs. As a rule, little or no fever is present and the temperature is said sometimes to be subnormal, although there are few instances where the temperature has been accurately recorded by a clinical thermometer. Little is known about incubation period, and autopsy records are few, fragmentary and largely unreliable.

CONNECTION WITH DISEASE IN CATTLE.

One of the most striking features of milk sickness is its association with certain localities. Settlers along the valleys of certain rivers or small streams are known to have been liable to outbreaks of milksickness, while those living in adjoining regions and under apparently similar climatic and geologic conditions remained entirely free from the scourge. Equally significant is the fact that in those localities where the disease existed

* Our investigation has been aided by a grant from the Memorial Institute for Infectious Diseases and by private subscription from public-spirited citizens of the Pecos Valley. We would especially acknowledge the help and courtesies extended to us by Dr. F. F. Doepp and Dr. Maurice Friedman and by Messrs. F. G. Tracy, A. M. Hove and W. M. Reed.

1. Palmer: Chicago Clinic, pp. 267-269, 1904.
2. Report of the Surgeon General Public Health and Marine-Hospital Service for 1907, p. 33.
3. Janus, 1897-1898, 2, pp. 437, 525.

there was invariably present a disease of cattle termed the "trembles" or "slows" and characterized by a symptomatology that was, to say the least, suggestive of the human milksickness. There are scores of instances in the literature of the subject showing in an unmistakable way a connection between the use of milk or meat from cattle sick with the trembles and an attack of milksickness in man.

NEW FOCUS OF MILKSICKNESS.

In November, 1907, we discovered a new focus of milksickness in the valley of the Pecos River, New Mexico, nearly 1,000 miles distant from the region where the disease had previously been known to prevail. At the time of our visit to the Pecos Valley the death of stock from this cause was generally attributed to "alkali poisoning." Some local observers, however, held the view that the trouble was due to the cattle eating some poisonous plant, the rayless goldenrod (*Bigelovia rusbyi*) being the plant most commonly suspected. In a letter received from Dr. W. G. Langley, State Veterinarian of Texas, we are informed that the same affection probably exists also in Texas from the state line along the valley of the Pecos to a point about fifty miles below the town of Pecos. It is possible that the disease occurs in the valley of the Rio Grande, but we have not been able to secure definite or positive information on this point.

Through the kindness of Drs. Maurice Friedman and F. F. Doepp we have obtained a record of 38 cases of this disease in man occurring in and about one town of about 2,000 inhabitants, between December, 1898, and January, 1908. Two of these cases in the convalescent stage we have seen. We also had the opportunity of studying an outbreak of considerable proportions in a herd of cattle and of observing and photographing the animals in many phases of the disease. Autopsies were made by us on animals dying from the effects of the disease and also on several shot or killed by a blow on the head while in various stages of sickness.

Many conjectures, some of which now appear grotesquely absurd, have been made as to the nature of milksickness. Those most generally advanced have assigned the cause to the eating by cattle of some poisonous herb, the same poison that causes the illness of the cow being communicated to man through milk, butter or flesh derived from the affected animal. In different localities and by different observers various plants have been incriminated. The poison ivy (*Rhus toxicodendron*) and the white snakeroot (*Eupatorium ageratoides*) have been frequently accused of giving rise to trembles and through it to milksickness; in some cases observation apparently has been supported by experimental evidence. The poison ivy, however, grows in abundance in the Atlantic seaboard states and in other localities where milksickness has never been known, and there are also observations indicating that the plant can be eaten by stock with impunity. The white snakeroot, while fairly abundant throughout most of the milksickness region of the central western states, does not occur in New Mexico, where we have found a center of the typical disease. Mosely,[4] to be sure, has recently published a report of some experiments thought by him to show that this plant is the cause of milksickness, but his experiments have been repeated by Crawford[5] with a completely negative result. The rayless goldenrod, which has been looked on as the cause of the "poisoning" in the Pecos Valley, is not found in Illinois, Indiana and Ohio, states in which many cases of trembles and milksickness have occurred.

In the two cases of the disease in man that were seen by us, one through the kindness of Dr. Doepp (Case 1), the other only incidentally (Case 2), the patients were convalescent when we arrived and, although blood examinations were made in Case 1, yielded nothing especially noteworthy. The history of the cases presented some of the classic symptoms of milksickness. In Case 1, a sweetish odor of the breath, said to be characteristic of similar cases of "alkali poisoning," was plainly perceived and was judged by us to be the odor of acetone. In Case 2, concerning the nature of which there had at first been some doubt, the same odor had been noticed by the wife of the patient, but was not apparent when the patient came under our observation.

The temperature records of Case 1 showed an average of about 97° F. *per os* through the attack. Mental confusion, nausea and obstinate constipation, preceded by extreme lassitude, were features of the onset of this case. Dr. Doepp assured us that the patient had had an enlarged liver, the enlargement extending about three inches below the costal margin. The organ could not be detected below the margin of the ribs at the time of our examination. The other patient (Case 2) had been ill with constipation, nausea and vomiting about two weeks before our arrival, the attack being diagnosed provisionally as "ptomain poisoning." When we saw the patient he bore every evidence of having passed recently through a severe illness. A slight exertion caused excessive fatigue, and this condition persisted throughout the period of our observation.

The old reports of milksickness state that lasting debility is a common consequence of the disease. Other features of these cases, in which we need not enter at this time, showed a close and convincing correspondence with the descriptions of milksickness in the early literature. The origin of the cases could not be definitely traced, but they were possibly connected with the eating of meat obtained at a Chinese restaurant.

SYMPTOMS OF THE DISEASE IN CATTLE.

We were able fortunately to observe the progress of the disease in a herd of about eighty cattle and to obtain all pertinent data.

One of the first noticeable symptoms of the disease in cattle is that the animal spends more time than usual in lying down and shows a reluctance to rise when urged; there is sometimes but not always a definite loss of appetite; the animal drinks as much as usual or even somewhat more than usual. If made to get up and urged to run, it quickly shows muscular distress, manifested in a definite weakness of the muscles of the fore and hind quarters, producing a shuffling gait as if its feet were sore; often it halts and trembles violently in all quarters, making at times ineffectual attempts to lie down and finally falling suddenly, trembling the while. Its breathing after such exercise is greatly accelerated; this rapidity of breathing passes off on resting. Sometimes after being thus disturbed the animal may have a passage of the bowels, usually of a rather thin consistency, in which may be noted much mucus mixed perhaps with blood; at other times this dropping of dung is not observed and the animal may be badly con-

4. Ohio Naturalist, 1906, 6, pp. 463, 467.
5. Bull. 121, Part I, Bureau of Plant Industry, U. S. Dept. of Agriculture, Washington, 1908.

stipated. From this on, if the symptoms do not improve, the animal becomes steadily weaker, rising less often, eating and drinking less and less, until it becomes so weak that it can not rise, but lies on its side, moaning more or less frequently, its neck often becoming twisted to one side and the neck muscles standing out on the opposite side, hard and stiff. The sclerotics are often deeply injected and accompanied by a yellowish red discharge which becomes gummed on the canthi. The breath often acquires a more or less pronounced odor of acetone, but this odor may be absent. In the later stages of exhaustion there may be twitchings of the limbs, more particularly the fore legs, less often the hind legs, so that the ground becomes grooved by the movements. During the mid-stages of the disease the temperature is irregular, often ranging a degree or two below normal. We saw no cases of paroxysmal rage manifested by any of the animals we had opportunity to study. The animal dies quietly, its breathing becoming less pronounced and fitful, developing a Cheyne-Stokes rhythm; apparently all consciousness is lost shortly before death. Feces are often passed up to within a day before death, although as a rule the animal is more or less constipated throughout the course of the disease. Ranchmen state that in their experience an animal often recovers if it is "scoured out," either by feeding it Kaffir corn or giving it doses of linseed oil, leading to a thorough cleaning out of the bowels. The method of keeping the bowels open in the human patient by doses of castor oil has likewise been found beneficial.

THE PATHOLOGIC ANATOMY.

Externally the body presents nothing on inspection that is to be considered worthy of note. On reflecting the skin of the animal one can often detect an odor of acetone, particularly if the animal has just died. There are no subcutaneous lesions of any sort to be found.

On opening the cavities of the thorax or abdomen the odor of acetone is usually very marked.

The Thoracic Cavity.—Occasionally there may be a small quantity of clear yellow fluid present in the pleural cavities, which looks like serum and clots quickly on exposure to the air. There is no pleuritis. The *lungs* do not collapse greatly on opening the thorax. Several small areas of atelectasis may be found scattered over the dorsal aspect of the organs or at the apices of the upper lobes; at times one notices an occasional small area beneath the surface of the pleura which gives the impression that the part is filled with blood. The color of these organs varies at different times from a normal salmon color to a generalized purplish red, the latter condition being always found after a relatively long period of illness. The lungs feel boggy and on section exude a great deal of frothy fluid, *i. e.*, they are in an edematous state, and this circumstance accounts for the incomplete collapse of the organs on opening the thorax. Sections of the most edematous portions, however, float in water. We did not on any occasion find any traces of bronchopneumonia or lobar pneumonia. The mucosa of the trachea and bronchi showed no signs of inflammation. No ecchymoses were found on the pleural surfaces.

The Heart.—As a rule the pericardial sac contained varying quantities of clear straw-yellow fluid (50 to 175 c.c.) which clotted on exposure to the air. Pericarditis was not met with, at least such as could be laid to the disease; in one instance the visceral pericardium was thicker than normal, giving a uniform grayish tone of color to the whole of the organ—this was evidently due to some old attack of pericarditis. The right heart was generally found distended with blood, whereas the left side of the organ was usually found empty. Among the most noticeable things seen on opening up the pericardial sac were numerous areas of ecchymoses beneath the visceral pericardium, distributed chiefly along the course of the cardiac veins from base to apex and at times numerous at the base of the heart around the roots of the great vessels. These areas varied in size from that of a mere pin-point to irregular areas measuring approximately 2 by 2.5 mm. and the accumulation of blood sometimes bulged the serous covering up above the surface about 1 mm. in places. In some of the animals ecchymoses were of slight extent and in one case absent. No ecchymoses were ever seen on the parietal surface of the pericardium. As a rule the heart muscle was always definitely paler than normal, sometimes giving the impression of the existence of cloudy swelling, and at other times showing small areas of fatty metamorphosis. On opening the heart there were never present any evidences of the existence of endocarditis. In two cases ecchymoses were found beneath the endocardium over the tricuspid valves close to their bases, the accumulation of blood bulging up the endocardium about a millimeter high. On section the musculature showed the same appearances as seen on the outside, namely, either fatty areas or streaks, or more or less general cloudy swelling; this was brought out particularly on making sections of the muscle in the left ventricle, the apparent fatty areas being well marked.

The Abdominal Cavity.—On opening the peritoneal cavity there was in general little or no fluid present above what might be considered normal. No evidences of peritonitis were ever seen. In some cases small scattered areas of ecchymoses were found beneath the parietal peritoneum; these never measured over three square millimeters; more rarely were such found beneath the visceral peritoneal coat. The stomachs were usually well filled with food material in contradistinction to the intestines, both small and large, which were usually empty. The appearance of the small intestines, particularly in the duodenal and jejunal portions and less so as the large gut was approached, was that of a general and deep injection of the vessels beneath the peritoneal wall and within the walls of the gut itself. The large gut, as a rule, was in an apparently normal state and occasionally contained some fecal material.

Liver.—The most conspicuous condition pathologically among the organs was the state of the liver. Uniformly this organ was much enlarged, of a purple red color, being full of blood, with at times areas or streaks showing yellowish against the red color of the rest of the viscus. The gall bladder was most often full of bile of a dark green color. On removing the liver from the body and applying pressure to it, the dark red color disappeared and was replaced by that of a reddish yellow. The consistency of the liver substance was much diminished and it required little pressure of the fingers to produce rupture. At times an occasional ecchymotic spot could be seen under the capsule. On section the organ dripped considerable blood and exposed a reddish yellow surface, the presence of the blood vessels everywhere being plainly marked out, giving the typical appearance of the "nutmeg" liver. The parenchyma was markedly fatty. The gall bladder in some of the animals on being opened showed a small degree of injection of its mucous coat; at other times it looked quite normal. The bile was always clear and of a dark greenish color.

Spleen.—The spleen, so far as determined, was little, if any, enlarged in any of the cases, the capsule often being wrinkled up and thick and of a pearly gray color. In two of the animals the spleen showed several small ecchymotic patches, but as a rule these were absent. On section the organ was of a deep maroon red color, and the Malpighian bodies were not seen at all distinctly, sometimes not at all. The fibrous tissue frame work was in all cases very evident. The consistency of the spleen was thought to be normal in all cases, at least it was not particularly soft.

Kidneys.—The kidneys, so far as we were able to judge, were always enlarged and engorged with blood, having in consequence a deep brown red color. In certain of the animals the kidneys showed a definite cloudy swelling of the parenchyma, and in one instance slight fatty change. On section the organs contained a very considerable quantity of blood. The Malpighian tufts always stood out plainly on the cut surface. On the elimination of the blood from the organs in certain of the cases the appearance of cloudy swelling or of fatty metamorphosis seen in the organ before removal from the body vanished so that it could not be determined with certainty whether there existed any degenerative changes or not; on the whole, such organs looked healthy.

Bladder.—The bladder often appeared on the outside deeply injected, but this condition was not constant. On opening the viscus the mucous surface was at times found to be injected, at times not. There were no ecchymoses seen under the mucosa. In certain of the cases the urine contained within was cloudy and apparently contained traces of blood. The adrenals seemed to be normal.

Intestines.—On opening the small intestines they were seen to be much injected in the mucous membrane and also showed here and there in some of the animals small ecchymoses in the mucosa. As a rule the gut in the duodenal portion held a considerable quantity of greenish yellow mucus mixed in small amount with material from the stomach. Passing downward through the jejunum and upper parts of the ileum, the mucus in the gut was of a very tenacious character and of a definite yellow color, with little or no food material in it; it clung to the walls of the gut strongly and was mixed with small bubbles of gas. The large gut on being opened appeared normal in all the animals.

Muscles.—The general musculature of the animals was normal in appearance, being not pale or of deeper tint than usual; no ecchymotic spots were ever found beneath the muscle sheaths or in the muscle substance.

Brain.—In only one animal was the brain exposed, and this only with difficulty on account of lack of proper tools. In this case there was some congestion of the meningeal vessels, but no redness of the parenchyma of the brain. On section the ventricles of the brain appeared also congested and there was an excess of fluid, which was not, however, cloudy or blood stained.

THE DISEASE IN HORSES.

There was opportunity to note the clinical condition in but one horse. This animal had been out on pasture land on which two other horses had contracted the disease and died a day or two before this animal was seen. The horse stood in its stall, legs somewhat wide apart, and motionless except for its somewhat rapid breathing, sweating profusely about the head, neck, shoulders, back and flanks. Its head hung low and the animal appeared to be fully conscious. Its breath possessed a faint odor of acetone. Its rate of breathing was 28 a minute and its pulse 72. On percussion, the lung note was fairly clear and no signs of any pneumonia or bronchopneumonia could be discerned. Auscultation was rendered difficult and untrustworthy by the squeaking of the hair on the hide during the breathing, but no blowing note or coarse râles could be made out. No muscular tremors were noticed while the animal stood in the stall. The feces which had been passed were well formed and did not look abnormal. The animal died at midnight the next day after having been ill about 72 hours. It is to be regretted that no autopsy was obtained on this animal, but circumstances rendered this unavoidable.

Autopsy on Other Horses.—Opportunity occurred, however, to make an autopsy on another horse an hour after death, and on still another some 15 hours after death. In the latter case marked general invasion with *Bacillus welchii* prevented satisfactory examination, since the blood had become laked and had stained the tissues everywhere very deeply. In the former case the conditions found in the organs were in general similar to those observed in cattle. There were, however, some noteworthy differences. Instead of the liver being markedly fatty looking its condition appeared more one of marked cloudy swelling, although fatty changes were not wanting; the substance was friable.

Kidneys: The kidneys appeared to show cloudy swelling, but as they contained much blood this was not readily and certainly established.

Intestines: In the small intestines there were found at irregular intervals nodules lying in some instances close below the peritoneal surface and in others somewhat more deeply embedded in the wall of the gut. Viewed from the outside they measured in diameter about 4 or 5 mm. and were elevated above the surface in some cases full two millimeters, in others they projected about one millimeter. Those in certain instances were of a gray-yellow color surrounded by a zone of injected vessels and one or two of the nodules showed some traces of localized peritonitis capping, as it were, the apex of the nodule. In all there were eight of these nodules. On opening the gut it was found that these nodules had their origin in an inflammation of some solitary lymph nodes situated deep in the mucosa. In one part of the small intestine close to a nodule was seen imbedded fairly firmly a piece of hard foreign matter, which was supposed to be a thorn that had been swallowed and had penetrated the intestinal wall; this was later on found by microscopic examination to be the necrotic core of one of the nodules that evidently had ruptured through into the lumen of the gut. The peritoneal surface of the abdominal cavity presented a few ecchymotic spots. There was a very definite odor of acetone on opening up the cavities.

PATHOLOGIC HISTOLOGY.

So far as studied the chief lesions appear in the liver, heart musculature, kidneys and small intestine.

The changes are those of a parenchymatous nature such as are frequently produced by toxin action in general, namely, cloudy swelling and fatty metamorphosis. The severest action is seen in the liver tissue, where the acute parenchymatous degeneration is exceedingly well marked. The liver cells are greatly enlarged, full of granules of various sizes, and at times the nuclei are barely seen or absent; in some places both cloudy swelling and fatty metamorphosis are co-

existent in the same tissue. In no instance has there been determined any necrosis of the liver. The heart muscle in the various animals studied show variation in the intensity of the changes met with. In all, if careful search is made, there is found more or less well-marked evidences of cloudy swelling and in some cases of fatty metamorphosis, not widespread as a rule, but appearing in muscle bundles here and there in the tissue. No necrotic foci have been found. The kidneys are not so profoundly affected as might be expected; in some instances there are evidences of glomerulitis, accompanied by areas of acute parenchymatous inflammation, but in no case is the latter widespread in any of the specimens so far examined. The interstitial tissue nowhere is affected. Hyaline casts were noticed in the tubules in two specimens, as well as what was believed to be altered hemoglobin in the interstitial tissue and in some of the cells of the tubules.

In the small intestine of cattle there is seen to be great engorgement of the blood vessels of the gut from mucosa to peritoneum, accompanied by more or less of a well-marked small-celled infiltration. In one case the lymphoid aggregations were greatly enlarged and the lymphatic vessels in many places filled with large mononuclear endothelial cells like those seen in typhoid fever in the human subject, and traversing the lymphatics through the gut to the peritoneum, which was also in an edematous condition. The smooth muscle of the inner circular coat in places showed fatty metamorphosis of the muscle fibers. No necrosis of the lymphatic nodes could be seen in any of the specimens examined. In the case of one horse, as in the cattle, there exist in the small intestine evidences of the presence of localized inflammatory edema, largely confined to the neighborhood of the lymphoid aggregations. In this animal it has already been mentioned that in the gross examination of the gut a foreign body resembling a thorn appeared to be embedded in the mucosa. It has now been demonstrated by section that the supposed thorn is the remains of a pyramidal necrotic plug of mucosa still adhering to the deeper structure of the gut by its apical portion. The necrosis with its resulting slough evidently begins in the center of the lymph node and extends outward toward the lumen of the gut cutting out a wedge-shaped piece of submucosa and mucosa right to the surface, the base of the wedge impinging on the lumen of the gut. In its immediate neighborhood there are a large number of polymorphonuclear leucocytes and small round cells.

The general architecture of the necrosed tissue can barely be made out. There are ample evidences of reparative processes going on at the edges of the ulcerated surface of the mucosa, as new formed epithelial cells can be noticed growing over the edges of the ulcer and along the sloping floor in some of the sections. In another part of the same field can be noticed another swollen lymph node with its center just beginning to necrose, although there are no evidences of the extension of the ulcerative process towards the lumen of the intestine.

Examination of the other organs has not yet revealed anything of great interest. The lung tissue gives a picture of generalized edema; in places there may be atelectasis, and in other places small areas where the engorged capillaries have ruptured and filled the alveoli with blood; occasionally there can be found traces of localized emphysema, only a few alveoli here and there showing distention and intercommunication. The spleen in all the specimens gives evidence of the general engorgement seen in all the other sections of tissue; in some cases there is a deposit of altered hemoglobin in the meshes; there are apparently no other changes to be noted.

Sections of the central nervous system give no evidences of pathological alteration, beyond a general engorgement of the vessels everywhere in the sections of tissue.

BACTERIOLOGY.

Cultures were made from each animal on which an autopsy was performed, with one exception, and coverslip preparations were made from the various tissues and fluids removed from the bodies. In general, media were inoculated from the heart's blood and organs of the abdominal cavity, from the intestinal contents in two cases, and from collections of fluid in the serous cavities. Culture media were not inoculated in the field, as a rule, but from tissues and fluids removed from the body and brought to the laboratory, *i. e.*, within not more than two hours after the autopsy.

Early in the work a rather long slender bacillus was seen in the coverslip preparations made from the organs of a dead cow; a bacillus was also isolated from the tissues and body fluids of this and several other animals, in a number of instances in pure culture; the injection of 2 c.c. of heart's blood from a dead cow into a rabbit was followed by a fatal result, and a bacillus, apparently the same as that seen in coverslip films and cultivated from the organs of the cattle, was obtained in pure culture from the heart's blood and peritoneal exudate of the rabbit. These findings focussed our attention on this bacillus and, since the inferences from these observations have been supported by experiments with pure cultures, we have designated the bacillus as *B. lactimorbi.*

The morphologic and tinctorial features of this specific organism may be briefly given as follows: In coverslip smears from the organs the bacilli are larger and more slender than the colon bacilli, and stain unevenly with methylene blue. In preparations made from cultures grown on agar at 37° C. the organism is found to be a rod a little smaller than the anthrax bacillus, occurring singly and in pairs and in occasional filaments. As a rule the rods at the end of 24 hours incubation do not stain deeply with methylene blue, even if heated for a moment or two over the flame, but at one or both poles or at the center of each rod are found metachromatic granules which take on a reddish or purple tint, standing out sharply from the rest of the stained rod. Spore formation was observed in our first culture, the spore being perfectly round and situated at one pole of the rod in the mature forms; in the less mature rods, 24 hours old, the spore may be slightly oval and lie not quite at the end of the rod; the general effect produced by the shape and location of the spore reminds one strongly of the tetanus bacillus.

The spores stain readily by any of the ordinary methods. The organism is motile and it is found on staining by van Ermengem's method to be possessed of 10 or 15 flagella disposed peritrichally, the flagella measuring in length about five times the length of the bacillus itself.

This bacillus grew on our plates as small streptococcus-like colonies. It was soon found that some of the bacilli isolated and possessed of similar cultured characteristics did not answer in all respects to the descrip-

tion just given. Some differed markedly in morphology, forming more filaments than rods, both being almost devoid of metachromatic granules and in some cases even of spores, although corresponding culturally. This morphologic deviation occasioned some perplexity until it was found that if grown on gelatin at 25° or 30° C. the refractory bacilli would become metachromatic and sporogenous. We were able at the outset to establish the presence of *B. lactimorbi* in the cultures from four animals from the following sources: In the intestinal contents of two cows, in the bile, spleen, and liver, and in the liver of a four months' fetus of another (intestinal contents not examined), and in the pericardial fluid and intestinal nodule of a horse. A few cultures from other sources still remain doubtful.

Studied in greater detail after we had become assured from the results of animal inoculation that we were in possession of a pathogenic micro-organism, the following appearances and cultural reactions were observed:

Agar Slant.—At 37° C. at the end of 24 hours, the surface is more or less irregularly covered with a delicate veil-like growth, which is more profuse at the end of from 48 to 72 hours and eventually may take on a semiviscid character in some cultures; color, grayish, moist, smooth and glossy; no pigmentation of the growth itself or of the medium; no gas; condensation water growth heavy, gray-white in color. No odor.

Dextrose-Agar-Stab.—Surface growth occurs around the puncture and extends irregularly around from it in a delicate manner. At first the bacterium grew sparingly down the middle track for about 1.5 cm. but now it grows down 3 or 4 cm. or even farther; the needle growth is smooth and delicate, whitish in color and smooth; no pigmentation of the medium; no gas; no odor. The growth is more luxuriant after a few days.

Broth.—At the end of 24 hours there may not be any growth noticeable except sometimes a slight clouding of the broth at the surface. At the end of 48 hours there is seen on the surface, a well-formed pellicle, which will sink if the tube is agitated; the rest of the medium is feebly clouded and there may be a fine semiflocculent sedimented growth at the bottom of the tube or along the dependent side, if the tube has been inclined.

Litmus milk.—If not heavily seeded there may be no visible signs of growth. As a rule there is no change at the end of 48 hours; by 72 hours the cream ring will show a delicate green-blue color in the drier parts, and even in some instances the upper portion of the milk will show a slight alkaline reaction; this reaction daily increases until at the end of ten days the whole tube takes on an alkaline reaction which becomes more and more marked, until as in cultures of the hog cholera bacillus the medium may lose a part of its color, turning a dirty white, and even begin to turn opalescent, indicating a solution of the casein due to the great increase in free alkali. Coagulation has not been observed.

Potato.—No growth was observed; no multiplication was apparent on examining the surface by scraping and staining the scrapings and examining them under the microscope.

Heinemann's Synthetic Potato Medium.—No visible growth could be made out even at the end of two weeks; microscopic examination of the scrapings of the medium at the end of two or three days shows evidence of abundant multiplication.

Blood serum (Löffler's).—At the end of 48 hours there occurs along the needle track and confined to it an elevated, fairly vigorous, smooth, moist, yellowish, glossy growth, which later tends to spread but little. There is no discoloration of the medium, nor any liquefaction, nor odor.

Gelatin-Stab.—Grown at 20° C. growth begins to appear at the end of 48 hours, but is not sufficiently advanced for description until 72 hours old; then there is seen little or no surface growth around the puncture; down the stab to the extent of about 2 cm. a delicate gray, smooth growth appears. At the end of a week the surface growth has become extended on all sides from the puncture as a fairly well developed film of a whitish color, smooth, moist and glossy; at times the first evidences of liquefaction may now be detected, but this is not well established until the tenth day, when the medium just beneath the surface growth is slightly fluid. As time passes the liquefaction slowly progresses, extending down the stab to a slight degree, the gelatin at the end of 18 days or three weeks being liquefied completely across the tube and slightly downward. If kept at 23° or 24° C. the appearance and progress of the liquefaction makes more rapid headway, and at the end of a month at this temperature the whole of the gelatin may be reduced to a fluid state. There is always noticeable a more or less well defined putrescent odor.

Gelatin.—If the organism is grown in a petri dish of gelatin at 30° C., it is found at the end of 24 hours that the whole of the medium is quite cloudy, with not infrequently several small islets of pellicular material scattered over the surface. The surface growth increases during the next four days but never forms a complete film over the surface. The putrescent odor is more manifest in cultures grown at this temperature (30° C.).

In all cases in which a surface film forms at room temperatures on any of the media, fluid or solid, and particularly in gelatin left at 30° C. spore formation is abundant.

When grown at 37° C., particularly at the first isolation, the organism presents certain noteworthy differences both in growth appearance and in morphology. On slant agar the growth may continue thin and veil-like or may be as vigorous as the growth of the typhoid bacillus on the same medium. In broth there may or may not be a pellicle; as a rule at the end of 48 hours, there is a slight cloudiness only and a tolerable amount of sediment in the tube, which increases only slightly thereafter. The alkalinization of the milk cultures is not hastened by growing at this temperature. The morphologic alterations are striking; the size of the bacillus is less, approaching that of the typhoid bacillus, and there are irregularities in staining both in the individual cells and in different cells in the field; filament formation is more pronounced, and there may even be swollen, twisted forms of a shape entitling them to be classed as involution forms; metachromatic granules may be entirely absent or a few cells containing them may be found after prolonged search; spores are sometimes formed but as a rule not so abundantly as at 30° C. and by some races not at all. If a culture with these characteristics is grown on gelatin at 20° C. or at 30° C. and allowed to pass to the stage of liquefaction and again grown on the same medium and

at the same temperature the type with metachromatic granules and abundant spore formation is produced. Our recognition of the true nature of certain cultures was considerably retarded by the uncertainty introduced through this polymorphic tendency.

Agar plate colonies of *B. lactimorbi* at the end of 24 hours at 30°, or 37° C., resemble those of *Streptococcus pyogenes*, but with this difference that they show a tendency to spread out in a film, particularly if the agar is freshly made, when the whole surface of the plate may be covered; film formation is also to be noted on the lower surface of the medium against the glass bottom. One of the strains at the end of three days on agar at room temperature developed a very distinct yellow color both in the depths of the agar and on the surface. In gelatin plates grown at 20° C. at the end of from 43 to 72 hours the colonies make their appearance and resemble at first those of streptococci but at the end of the fourth day they appear more vigorous, the surface colonies partaking more of the characteristics of *Staphylococcus albus*, although the color is of a yellowish white and they are not so elevated nor large, measuring about 2 mm. in diameter. Liquefaction becomes apparent at the end of ten days or two weeks, the colonies settling down in the medium which after five or six weeks becomes almost wholly liquefied.

The thermal death point of the bacillus as determined by the use of Sternberg's bulbs varies according to the type of culture employed, as shown thus:

48-hour agar culture grown at 30° C., fully sporing...15′ at 100° C.
48-hour agar culture grown at 37° C., non-sporing... 5′ at 55° C.

All tests were made with a time limit of 90 hours in the thermostat at 37° C., using agar as the medium for growth.

AGGLUTINATION.

We have been unable to obtain any signs of agglutination with three of the races of organism (two from cattle, and one from horse), using serum from the human patient and from two cows and one horse in dilutions of 1:50.

ANIMAL EXPERIMENTS.

Rabbits, guinea-pigs, dogs and calves have been used by us in experimental work.

Rabbits.—A young rabbit (R. 1) weighing about 400 grams, was inoculated intraperitoneally with 2 c.c. of heart's blood from a heifer that had died of "alkali poisoning" five hours previously. The rabbit to all appearances remained entirely well for four days, at which time a certain listlessness was noted. On exercising the animal it quickly became exhausted and after running a short distance would fall over and then slowly struggle to its feet, panting vigorously. The muscular weakness increased during a period of about five hours after this condition was noticed, and the animal then died quietly. The autopsy disclosed a general exudative peritonitis, the exudation being whitish-yellow and fibrinous everywhere, all organs being more or less covered by it. The liver was very much enlarged, dark red, soft and friable. On section the lobules could not be readily distinguished (cloudy swelling). The spleen was enlarged, deep red and soft, the Malpighian bodies being barely discernible. The kidneys were enlarged, moderately red and showed cloudy swelling. In portions of the small intestine the vessels were prominently injected, but there were no ecchymoses. The heart was apparently normal.

Bacteria Found: Coverslip films made from the peritoneal exudate, heart's blood, liver and intestinal mucus showed in all cases long slender bacilli with the morphologic character of *B. lactimorbi;* in the intestinal mucus other forms were also present. Plates made from peritoneal exudate and heart's blood gave pure cultures of *B. lactimorbi.*

A second rabbit (R. 2) was inoculated intraperitoneally with about 1.5 c. c. of the clot in the heart of R. 1 rubbed up in sterile water. Unfortunately this rabbit died during our return journey to Chicago (about 3 days after inoculation), and before we were able to make an autopsy decomposition changes had gone so far that the material was virtually worthless. Other rabbits (adults) have been fed with pure culture of *B. lactimorbi* and also inoculated subcutaneously and intraperitoneally, but up to the present with negative results.

Guinea-pigs.—A number of guinea-pigs have been fed and injected with pure cultures of *B. lactimorbi,* for the most part with negative results. In a few instances, however, when animals were used that had previously been weakened by other treatment, for example, by injection with diphtheria toxin-antitoxin mixtures death occurred. No characteristic changes could be certainly observed in the organs, but in one case (G.-P. 8.) *B. lactimorbi* was isolated in pure culture from the liver, plates made from the heart's blood and bile of the same animal showing no growth.

Dog 1.—From January 28 to March 5 this animal received agar and gelatin plate cultures of *B. lactimorbi* in nine doses. On March 8 it received three gelatin plate cultures. This animal was a rather old dog, fat, lazy and docile. Ten days after the first feeding it was noticed that its appetite was not so good as usual. Two days later it passed some masses of hard feces with a small quantity of bloody mucus. On examining this mucus bacilli were found in good numbers along with cellular debris. When the bacilli were stained with methylene blue they showed metachromatic granules, but there were no spores present. Plated in agar the material yielded the typical *B. lactimorbi,* and abundant spore formation was observed. Eight days later the animal again passed a considerable quantity of bloody mucus when out for exercise on the street in care of an attendant; no cultures were obtained, and it was not observed to pass any further mucus. Four days after the mucus was first observed, the animal was noticeably thinner and showed well-marked irritability which as time passed developed into an almost maniacal raging when the cage was approached, although when out for exercise it was quiet enough, except to actual strangers at whom it snapped when they attempted to pet it. February 27 it was in a decidedly weak and emaciated state. It also had a marked limp in the left fore foot, but on examination of the paw no foreign body could be found. On extending the leg evidence of pain at the shoulder joint was given, although there were no external manifestations at that point. By February 29 the dog for the first time failed to leave its box voluntarily. On March 1 there was very definite weakness and stiffness in the hind legs. Its bark became harsh and husky and the conjunctivæ were quite deeply injected. This condition marked the height of the clinical manifestations, and since the animal became no worse it was killed by chloroform on March 10 and an autopsy made immediately.

AUTOPSY NOTES.

Abdominal Cavity.—On opening the peritoneal cavity there are no signs of inflammation anywhere. The liver is definitely enlarged; general color a deep chocolate, in places somewhat mottled by lighter colored areas; there is much blood in the organ, but on pressing this out the liver takes on a yellowish cast due to a moderate grade of probable fatty change in the parenchyma; consistency soft, capsule and liver substance rupturing easily on handling. On section the liver lobules are not clearly marked out and there is some cloudy swelling present as well as some fatty change; no focal necroses are seen; the tissue contains much blood; color red brown. The gallbladder and bile seem to be normal. Spleen is

probably normal in size; color dark red. Malpighian bodies near surface are readily seen; consistency is about normal.) On section contains considerable blood, but one can detect the Malpighian bodies without difficulty. Kidneys appear to be normal, both outwardly and in section. Adrenal glands look normal and on section are pale. Small intestine is injected in some places, but not markedly so; Peyer's follicles look prominent as seen from the outside; the mesenteric glands are not enlarged or altered; large intestine is apparently normal and in places contains fecal matter. On opening the whole gut there is some injection of the mucosa of the small intestine, but in only a slight degree; no ulceration and although Peyer's patches appear a trifle prominent there is no sign of inflammation in them. There is present a large number of a species of tapeworm. The large intestine shows no demonstrable lesions. No ecchymoses can be found in the serous membrane of the cavity. Bladder is not injected and is apparently normal.

Thoracic Cavity.—No fluid or ecchymoses are present in the pleural cavities, and no signs of inflammation. Lungs are light in color and apparently normal. Heart is a trifle large for a dog of its size (20 lb. dog), walls of both ventricles are pale and soft; valves are free of inflammatory changes; endocardium is clear; pericardium is clear and shows no ecchymoses.

Brain.—Cortical vessels are somewnat injected and full; no signs of meningitis. On section, no injection of the vessels was found, ventricles appear normal, with a slight trace of clear fluid in them. Cerebellum and pons and medulla are seemingly in a normal state.

Bacteriology.—Coverslips and cultures in agar were made from the liver and kidney. The coverslips showed nothing characteristic; from the agar plates from both liver and kidney, *B. lactimorbi* was isolated in pure culture after 48 hours' growth.

DOG 2.—A young dog of some fifteen pounds weight, in good condition was received on February 16, and during the interval between this date and March 19 it received four doses of gelatin plate cultures of several different strains of *B. lactimorbi*. On February 29 it was noticed that the animal had become noticeably thin, although lively and active. On March 10 it was much thinner and perceptibly weak, remaining contrary to habit in its box, after entrance of any one into room. Next day it had developed a bronchitis, causing it to cough and interfering with its barking. On March 12 it was evidently very ill, lying in its box and showing great disinclination to rise; March 17 found it still in an enfeebled state, unable to bark, and the cough still continuing. On March 19, however, it appeared much better and was out of its box; the cough was less severe. On March 20, it barked vigorously; the cough had almost disappeared, and the animal was lively. It was killed by chloroform and an autopsy was performed at once.

AUTOPSY NOTES.

Nothing of note is revealed by inspection. Reflection of the skin shows that the dog is exceedingly emaciated, there being no subcutaneous fat present. The muscles everywhere are very pale red. The inguinal and axillary glands are of normal appearance.

Abdominal Cavity.—On opening the abdominal cavity the peritoneum shows no signs of inflammation nor ecchymoses. The liver does not appear to be enlarged; color light chocolate brown; firm to the feel of the hand; it does not appear to show any cloudy swelling nor fatty change, and does not contain any excess of blood. No focal necroses are seen through the capsule. The gallbladder is empty. On section the liver looks in a tolerably healthy state, as does the gall bladder. The spleen is normal in appearance, both in the cut and uncut condition. In similar way the kidneys are likewise in an apparently good state. Adrenals are normal. The small intestines are found to be empty, and in places a bare trace of injection of the outer coats can be found. The large gut is seemingly in a healthy state and contains some fecal material. On opening up the intestinal tract, it is found that the small gut contains a fair amount of bile-stained mucus, and there is seen an occasional slight swelling of a Peyer's patch, but no sign of inflammation; there is an entire absence of any past or present sign of necrosis anywhere in the gut. The large gut contains soft feces and is in a normal state. Stomach apparently normal.

Thoracic Cavity.—The heart looks of proper size and is not soft to the touch, but the muscle of the ventricles is somewhat pale. Valves and endocardium are normal. The lungs show a few small points of atelectasis in the dorsal portions of the lobes of each; no trace of any bronchopneumonia. Trachea shows in its walls and in the wall of some of the larger bronchi some few flakes of muco-pus, although there is lacking any of the signs of active inflammation. Brain and spinal cord are in a normal condition.

Bacteriology.—Coverslip preparations were made from the liver, intestinal mucus and mucopus of the trachea. That from the liver showed no bacteria; that from the intestine a number of colon-like bacilli and a few cocci; in the tracheal pus there were quite a number of lanceolate diplococci and a very few bacilli. Cultures in agar were made from the liver, intestinal mucus, kidney and heart's blood. Liver and heart's blood sterile, the intestinal mucus gave *B. coli* and streptococci; *B. lactimorbi* was not obtained.

DOG 3.—This animal received gelatin plate cultures of one strain of *B. lactimorbi* on March 19, 23, 29 and April 8. On April 7 it appeared to be less active in its movements, a trifle thinner and showed no disposition to bark or whine. Next day, although it barked a little, observers received the impression that it was somewhat enfeebled. On April 9 it was weak and refused to leave its box, and when persuaded to rise up in the box it trembled perceptibly in the forequarters and neck muscles. On April 11, it was lively and again got out of the box and danced about in its cage and wanted to be petted. On April 14 no signs of illness could be further detected.

PATHOLOGIC HISTOLOGY OF THE DOGS.

In the tissues of Dogs 1 and 2 the action of a toxic substance is chiefly manifest in the liver and kidney. Particularly in the liver of Dog 1 the marks of a parenchymatous degeneration of the type of cloudy swelling is most pronounced, the cells being so swollen that it is hard to make out the existence of the capillary network; fatty changes are wanting in Dog 1, but are in slight evidence in Dog 2. In the kidney tissue of Dog 1 there is present some degree of glomerulitis, together with cloudy swelling of the epithelium of the convoluted tubules, the rest of the tissues being in a sound state. In Dog 2, although the glomeruli are well filled with blood due to general congestion of the vessels, there is no trace of inflammation of the glomeruli. Here and there are to be found traces of slight cloudy swelling of the convoluted tubules; otherwise the tissue looks healthy. In neither specimen are there any casts present in the tubules. The splenic tissue of Dog 1 shows that it contains a considerable amount of blood, otherwise there is nothing of a pathologic nature found. The heart muscle of Dog 1 shows slight traces of cloudy swelling in some of the muscle bundles. No fatty changes noted. That of Dog 2 appears normal. Other tissues seem to be in a normal state.

CALF 1.—A calf (C. 1) weighing about 350 pounds, was fed with agar plate cultures of *B. lactimorbi* at intervals of a few days during a period of about six weeks. To all appearances the animal remained entirely well and showed no characteristic symptoms, or, indeed, symptoms of any kind. The animal was killed at 9 p. m., and the autopsy was held the next morning at half past nine. The following pathological conditions were found:

Heart.—A small ecchymotic spot was found beneath the epicardium of the right ventricle near the apex; the organ was otherwise in an apparently normal condition.

Liver.—On the surface in three or four places were found small areas of irregular shape of an uniform reddish-gray color in which the architecture of the liver substance could not be seen. These were considered to be necrotic in nature. On section, these areas seen on the surface were found to dip down into the parenchyma to varying depths, preserving the same features as seen on the surface. On further examination of the organ there was found in the posterior portion of the large lobe some 3 cm. below the surface an irregularly shaped necrotic mass of about 6 cm. in diameter, whose appearance corresponded entirely to that of the smaller areas just described; it was very friable, breaking down on the slightest pressure. In other respects the organ appeared normal.

Mesenteric Glands.—These were generally much enlarged and less firm than normal. Other organs and tissues appeared to be in a normal state.

CALF 2.—Another animal (C. 2) was fed with spore-bearing culture in a similar manner. Three days after the first feeding the feces were soft, unformed, and contained much mucus. When exercised by running the animal was readily fatigued and showed great unwillingness to move, although on the preceding day it had been very active. On the fourth day the disinclination to muscular exertion was still more marked. There was much mucus in the feces, and microscopic examination showed the mucus to be filled with slender, granular-staining bacilli morphologically agreeing with *B. lactimorbi*. With the use of cultural methods *B. lactimorbi* was isolated and definitely identified. Nine days after the first feeding an abundance of blood-streaked mucus appeared in the stools. During the next two weeks little change was noted in the condition of the animal, beyond a slow but steady drop in the temperature, which, after the first 10 days, ranged below 100° F. a large part of the time. Four weeks after the dosing was begun the animal was alive, but emaciated and rather stupid. At the end of another week while being led about the yard, the animal's forelegs seemed to give way suddenly and it went down on its knees with head on the ground, but did not lose its balance completely. After a while it struggled to its feet and moved on, only to repeat the performance a little later. This behavior strikingly reminded us of the cattle affected with "slows" or "tires," as we have seen them in the Pecos Valley, but there were no "trembles" in this case.

NOTE: It is evident that the observations and experiments in part recorded in this article, in part reserved for more detailed statement,[6] are necessarily but the prelude to a more comprehensive study. For the purposes of such study more abundant material is indispensable and we shall be very grateful to all physicians who will notify us immediately on the appearance in any locality of milksickness or of the cattle disease, "trembles," "slows" or "alkali-poisoning."

Address letters or telegrams (at our expense) to E. O. Jordan, University of Chicago.

SURGERY OF THE PROSTATE.

A PLEA FOR EARLY PROSTATECTOMY IN HYPERTROPHY OF THE PROSTATE.

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A study of 485 recorded cases of prostatectomy for hypertrophy of the prostate, occurring in the practice of thirteen different operators, wherein the cause of death is given, shows in all 33 deaths. Of these deaths, ten were due to causes such as cancer of the liver, pulmonary tuberculosis, etc., in no way connected either with the operation or the pathologic condition because of which the operation was undertaken. Eight of the deaths were due to exhaustion, pneumonia, pulmonary embolism and sepsis, conditions caused by the operation itself or the anesthesia. It would be nearer the exact truth, perhaps, to say of the deaths due to sepsis that most of them were due to conditions existing before the operation was done; but for the present at least we will consider them as deaths due to the operation *per se*. The remaining 15 deaths were due to pyelitis, pyelonephritis, and other conditions secondary to and caused by the hypertrophy of the prostate, and existing at the time of the operation.

The total death rate in this series of cases, then, is less than 7 per cent. The death rate of the operation (charging the operation with some deaths, perhaps, which should not be charged to it, as above mentioned) is less than 2 per cent., while the death rate from conditions secondary to and caused by the enlarged prostate is 3½ per cent. In other words, half of all the deaths following prostatectomy are due to conditions set up by the enlarged prostate. The deaths from these conditions outnumber the deaths from the operation *per se* two to one. This means that the death rate in hypertrophy of the prostate treated without operation is about 4 per cent., while timely prostatectomy will yield a death rate of 2 per cent. or less. If there is any error in these statistics, it consists in attributing to the operation itself too many deaths and in charging to the pathologic conditions secondary to the enlarged prostate too few.

Fuller,[1] speaking of his personal experience with prostatectomy in over 300 cases, says: "I feel that if cases complicated with very marked uremia are excluded I can operate with an average risk to the patient of not more and probably under 5 per cent. Death from the operation itself is practically *nil*." Goodfellow[2] has done 105 prostatectomies with but two deaths. Watson[3] gives the death rate in enlarged prostate treated by catheterization as 7.7 per cent. The expectancy of life in patients treated by catheterization, according to Harrison and Lydston, quoted by Deaver,[4] is four or five years.

Time will not permit me to go further into the details here, so I will content myself with the assertion that the study of the statistics will prove that the above deductions are in accord with the facts. It is, perhaps, unnecessary to say that I am speaking of that degree of prostatic hypertrophy only which demands treatment. Thus far we have concerned ourselves with the question of mortality. Let us now turn to the question of morbidity.

The man with a clinically enlarged prostate is seriously handicapped as to his usefulness, comfort and pleasure. Will prostatectomy remove these disabilities? Will the operation cause any disability? Impotency, sterility, fistula, stricture, epididymitis, orchitis, and incontinence are the disabilities charged to the operation. Fuller, in 400 cases, has had but one case in which there was permanent dribbling of urine, and in that case the dribbling occurred only on exertion. He has had no permanent fistulæ, and it is his opinion that the operation should improve rather than injure the sexual function. Watson, in his analysis of 530 cases, gives the percentage of incontinence following the operation as 3½. Ruggles[5] says that in 39 cases operated on in Rochester, N. Y., incontinence followed in five (7.6 per cent.).

It should be remarked, in passing, that this percentage of incontinence as a result of prostatectomy is unnecessarily high. According to Pilcher,[6] complete control over the bladder is the rule. Barling, Hartman, McGill, Lilienthal, and Freyer[7] are of the opinion that control of the bladder is not interfered with by prostatectomy, but, on the contrary, is restored in cases wherein it was lost prior to the operation. The two latter are of the opinion, based on a large personal experience, that prostatectomy improves rather than in-

6. The full report of our investigations will appear in a future number of the Journal of Infectious Diseases.

1. THE JOURNAL A. M. A., xliii, p. 1452. (Fuller's cases are not included in the 485 cases studied.)
2. THE JOURNAL A. M. A., xlii, p. 1[illegible]. (Goodfellow's cases are included in the 485.)
3. Ann. Surg., xxxix, p. 853.
4. Am. Jour. Med. Science, cxxviii, p. 16.
5. Ann. Surg., xli, p. 558.
6. Ann. Surg., xli, p. 569, et seq.
7. Cumston, Surg. Gyn. and Obstet. iii, p. 361.

terferes with the sexual powers. Young,[8] basing his statements on 75 cases of "conservative perineal prostatectomy," says that in a "large proportion the sexual power has been maintained after the operation." He has seen but one permanent perineal fistula due to the operation; four cases of rectourethral fistula were cured by subsequent operation; no cases of continual incontinence have occurred; only one stricture occurred and that was easily dilatable, and in all voluntary urination was restored.

Goodfellow, in 73 cases of perineal prostatectomy, has had no permanent fistulæ, no permanent incontinence, sexual powers have been regained by many patients, and in but three patients has there been comparatively trivial trouble from traumatic stricture. He has had a few cases of epididymitis. Albarran, quoted by Young, reports the sexual powers lost in most of his cases.

Murphy's[9] conclusions, based on 51 operations, are that the sexual power is usually destroyed; the vesical control is almost uniformly good; the frequency of urination is reduced to about normal. I found no cases of stricture in Murphy's reports. One urethro-rectal and one urethral fistula were closed by subsequent operation.[10] It should be remembered that Murphy removes the posterior wall of the prostatic urethra in the perineal operation.

For obvious reasons it is difficult or impossible to arrive at accurate conclusions concerning the influence of prostatectomy on the sexual functions. Besides, one writer will overrate and another will underrate the importance of these and other functions. Hence, I concluded that perhaps the most reliable method of arriving at a just estimate of the effects of prostatectomy generally was to get the expression of a number of operators of experience as to their impressions gained from their patients' statements as to the results of the operation. Many patients, for instance, whose sexual power is lost or greatly impaired express their unqualified satisfaction with the results of the operation. With a view of arriving at the patients' attitude toward the operation, I wrote to a number of the more prominent operators of the country asking them what their experience along this line was and, incidentally, the number of operations on which their opinion was based. Some of the replies received cover other points besides the particular one now under discussion, and some of these are of such great interest that they are included in the abstracts which follow:

Drs. Munro and Bottomley have had 18 cases, with excellent results in 11, good results in 5, and in the remaining 2 there is no report other than that one patient died after two and a half years from an unknown cause, and that the other is dying of cancer of the prostate and metastasis.

W. L. Rodman says: "The effects after prostatectomy have usually, not invariably, been entirely satisfactory." Dr. Rodman was sick in bed when he wrote, and was, therefore, not able to give the number of his cases.

Dudley P. Allen says:

My judgment of the cases, based on those which I have seen and those from which I have received reports, is good, so far as the attitude of the patients themselves is concerned. Some of them report a complete restoration of the bladder function with normal micturition and normal power of the bladder in expelling urine.

John B. Murphy writes:

I might say in a general way that here and there there has been an unsatisfactory result as far as the patient's effort and mental condition were concerned, but I have never received as large a percentage of strong, complimentary letters on the result, as I have on the prostate. So that, on the whole, my opinion would be that the patients, in a very great percentage of the cases, were very well satisfied.

A. VanderVeer answers:

Yes; the operation has yielded results satisfactory to the patients. As nearly as I can tell I think I have done in the neighborhood of fifty prostatectomies and a most remarkable condition has presented in the laboratory reports, i. e., a fraction over 30 per cent. of these cases have been of the nature of adeno-carcinoma. Of course these patients have not done so well, but I have some living nearly two years after the operation and the wounds have remained in good condition.

C. H. Mayo, including his brother's cases with his, says:

In two hundred and ninety-one cases, including twenty-six for carcinoma, we have twenty-eight deaths. We think the after-results of operations for enlarged prostate compare favorably with any other serious surgical work so far as the patients themselves are concerned. There is now but little trouble following the operative technic. While a few of these old individuals have other diseases, kidney, bladder and diseases of the blood vessels, which would be sufficient of themselves to prevent good health, it is no fault of the operation.

Dr. Lilienthal says:

My cases number about seventy-five, nearly all suprapubic. The patients are extremely grateful and do all in their power to send others to me who are afflicted as they were.

Hugh H. Young says:

The results after prostatectomy by the method which I employ are entirely satisfactory. There is generally no disturbance of sexual powers except in old men as you will see in the accompanying report. There is not a case that has not been benefited and with about half a dozen exceptions all have been completely relieved of the obstruction to urination. In some cases contracture of the bladder and cystitis have prevented their having a perfect result, but these can always be relieved by appropriate treatment by hydraulic dilatations. I have now had one hundred and ten consecutive cases without a death, two of these have been over 80 years of age, and about forty over 70 years of age.

Eugene Fuller referred me to some marked passages in his reprints, from which I abstracted the following:

My results are so nearly uniformly satisfactory and perfect that it is my custom to assure a patient that after recovering from the operation he will be able to urinate naturally, and at normal intervals will be able to empty his bladder completely, and that his urine will become free from pus and bacteria. As for a patient's sexual status after the operation, I do not consider it safe to be so positive, for a fair percentage of these elderly individuals have already lost that function through senility or through old inflammatory lesions in connection with the seminal vesicles. Prostatectomy will not restore potency in such cases. In a considerable number of those individuals who have lost their sexual force, the cause lies in the fact that the prostatic hypertrophy by its direct pressure on the seminal vesicles has caused atonic distention of those organs, the result being impotency. In such cases the removal of the hypertrophy will restore the sexual function. In a number of my operative cases representative of such a condition, satisfactory marriages have resulted the year after operation. If the patient still has sexual force before operation, in my experience prostatectomy ought not to injure the function, while in many instances it ought to improve it.

Dr. Fuller closes his letter by saying: "I have to date performed prostatectomy about 450 times."

These last two letters, so nearly alike as to results re-

8. Ann. Surg., xli, p. 549, et seq.
9. Four urethral fistulæ remained 4, 2, and 2 and 3 months, respectively, after the operation.
10. THE JOURNAL, xlii, p. 1558.

ported, from men of large experience, the one doing the perineal and the other the suprapubic operation, seem to show that the result obtained depends rather on the man operating than on the method chosen.

Willy Meyer writes as follows:

1. I have done outside of some eighty-five Bottini operations for prostatic enlargements, forty-one suprapubic and eight perineal prostatectomies. 2. Perineal prostatectomies: The greater number of patients were satisfied with the results; one developed recto-urethral fistula on the tenth day after operation; one had a very obstinate perineal fistula (suspicion of prostatic cancer); two patients lost power of intercourse. 3. Suprapubic prostatectomies: Results uniformly satisfactory to the patients. No fistula; no hernia; no dribbling. Virility preserved. In patients showing complications the two-stage operation, under spinal anesthesia, is highly advised. Personally, I prefer the suprapubic to the perineal operation.

Finney writes that, owing to the great experience of and good results achieved by Dr. Young, he has for the past four or five years turned cases demanding prostatectomy over to him or his (Finney's) assistants. He says:

My experience is based on a dozen cases operated on five or six years ago. These were about equally divided between the suprapubic and perineal methods and my results in each case were very satisfactory.

Crile says:

In my experience in about twenty-five operations for prostatectomy the patients themselves were pleased with the result and there is not a single instance in which there has been a clinical failure. That is to say, in not a single instance has the patient regretted that the operation had been performed. In most cases the patients have been very grateful for the relief afforded them.

Macdonald, of Albany, writes as follows:

I have done about eighty such operations for very different conditions. The most satisfactory results have been attained in pure hypertrophies of large size having material functional disturbances. As a rule, my patients have been greatly pleased with the results of the operation.

My own experience is limited to 25 cases. There were three deaths, all due to septic conditions (pyelonephritis and cystitis) which existed at the time of the operation, and because of which conditions the patients finally asked for operative relief. There were no postoperative sequelæ. I know of no operation which gives more general or more complete satisfaction to the patients than does prostatectomy for enlarged prostate. That malignant disease is present in a much larger percentage of cases of so-called enlarged prostate than was heretofore believed to be the case is proved by the experience of Young, the Mayos, VanderVeer, Munro, Bottomley, and others. Moreover, that a benign hypertrophy of the prostate may become malignant seems from the evidence at hand a well-nigh proved fact.

Summary.—The fatalities following prostatectomy are largely due to conditions resulting from the hypertrophy and existing at the time of the operation. Prostatectomy, in the absence of serious complications, entails a risk to life of less than 2 per cent. The death rate in enlarged prostate treated by catheterization is over 5 per cent. Prostatectomy in enlargement of the prostate adds to the average expectancy of life in these patients and adds to their enjoyment and usefulness. Malignancy is present quite often in enlargements of the prostate thought to be benign in character, and it is more than probable that benign enlargement may take on malignancy.

CONCLUSIONS.

1. The catheter treatment of enlarged prostate is, like the opium and poultice treatment of appendicitis, unsurgical and unsafe.

2. Prostatectomy, done before secondary changes have arisen, is the best treatment for enlarged prostate.

HYPERTROPHY OF THE SYNOVIAL FRINGES OF THE KNEE JOINT.

FURTHER OBSERVATIONS.

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In an article[1] on "Hypertrophy of the Synovial Fringes of the Knee Joint," published in 1903, I took credit for having done some original work in this particular field. Some time later it was brought to my notice that a comprehensive article on operative work on the knee joint, by Dr. Joel E. Goldthwait, which included this condition, had appeared[2] about one year prior to this. In 1903[3] there was published an article by Drs. Charles F. Painter and William G. Erving, entitled "Lipoma Arborescens," which also treated of these hypertrophies. In 1904, Dr. Albert Hoffa, late of Berlin, Germany, presented a paper on this subject at the annual session of the American Medical Association, at Atlantic City, in which by failing to call attention to the work of others he also appeared as a pioneer.

The credit for original investigation in any work should be given to whom it belongs, and in this case, while there might be some question as to the exact nature of the work done by the different men, credit certainly seems to belong to Dr. Goldthwait through his lucid contribution mentioned above.

In order that there may be no misunderstanding as to the character of the cases described in my article[1] referred to, also as to the character of those on which the following observations were made, let it be said that no inclusion is intended of those patients in whom the condition found was that of fatty tumor, chronic arthritis, or floating cartilage. The work relates wholly to that disturbance of the knee joint in which the normal synovial fringes, situated just posterior to the patella and on the same plane as the transverse line of the joint, have become so enlarged that they interfere with joint motion.

The other pathologic changes often described with this condition—lipoma arborescens, chronic villous arthritis, and floating cartilage—while in some instances they may be an extension of the process, seem to me to be entirely separate, and should not be considered with it.

The difference of opinion as to the results which may be expected from conservative treatment may arise from the fact that these conditions are of a different nature, and a surgeon would most certainly be justified in stating that tumors of fat, or floating cartilages, could not be satisfactorily treated by the use of the ordinary conservative treatment for joint disturbance.

Continued observations on this subject have shown that this hypertrophy of the synovial fringes is often met by the orthopedic surgeon and, furthermore, that its treatment demands surgical interference much more

1. The Journal A. M. A., April 25, 1903.
2. Trans. Amer. Ortho. Assn.
3. Boston Med. and Surg. Jour., Mar. 19, 1903.

frequently than was formerly supposed. Operative treatment, however, has not proved wholly successful in all cases, since the prolonged restriction of normal joint motion following the operation has been so marked that the results have caused one to hesitate before undertaking radical measures for its relief. In conversation, Dr. Hoffa, a short time after he had presented his views on the subject, stated that he had given up the work almost wholly for this reason. At one time my views on the subject were also in accord with the above, but subsequent work has caused them to be again altered; at present, a change in the method of operating which has produced better results has led to the conviction that operative procedures are justified in all cases which do not readily yield to conservative treatment.

The cause of so much difficulty following the operation has seemed to arise from the fact that too much scar tissue, which restricted motion, followed such an extensive operation as was considered necessary at one time. The long continued after-treatment with its accompanying pain, required to establish normal motion, has chilled the ardor of both the surgeon and the patient, especially if the latter had a friend who had already submitted to the operation. Therefore, a method of accomplishing the same ultimate result was sought

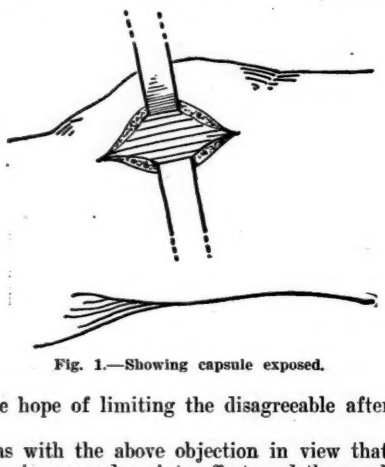

Fig. 1.—Showing capsule exposed.

with the hope of limiting the disagreeable after-symptoms.

It was with the above objection in view that I put the following procedure into effect, and the results have seemed to justify placing it before the profession:

As already stated, the usual method of operating, which is through an incision either U-shaped or lateral, division of the capsule, and thorough removal of the offending hypertrophied fringes, has often caused serious trouble through the interference with motion by the mass of scar tissue and adhesions after the wound is healed.

The interference with the performance of the normal functions of the joint is due to the swollen fringes catching between the joint surfaces as the leg is extended on the thigh; and although the subjective symptoms are often severe, and the individual is rendered practically incapacitated for work, a large number of the patients, when seen for the first time, do not show marked objective symptoms, as the fringes are small, and, while the attacks are frequent with some swelling, the temporary recovery is rapid. An examination of the joint at the time of operating often shows so little enlargement of the fringes that there may be some doubt in the operator's mind as to whether or not these structures are at fault. Repeated examinations, however, together with the disappearance of the symptoms following extirpation of the enlarged fringes has removed all uncertainty.

Owing to the fact that, in this class of cases, the parts which interfere with the joint motion are so small, there does not seem to be any need of their complete removal, since they cause the disturbance wholly by projecting into the joint cavity a very little farther than they do in a normal condition. If through a more simple operation the fringes can be retracted so that the obstruction is removed, it would seem that such a procedure is advisable.

The operation which has seemed to give the best results in my hands is as follows: A small longitudinal incision about two inches in length is made on either side of the patellar tendon, through the skin and subcutaneous tissues, and the capsule of the joint is exposed. Instead of opening the joint the capsule is separated from the overlying tissues for some little

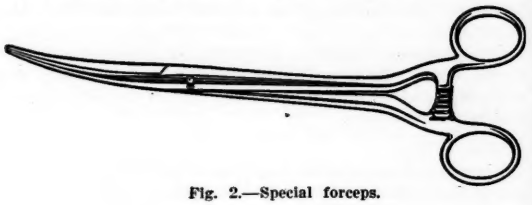

Fig. 2.—Special forceps.

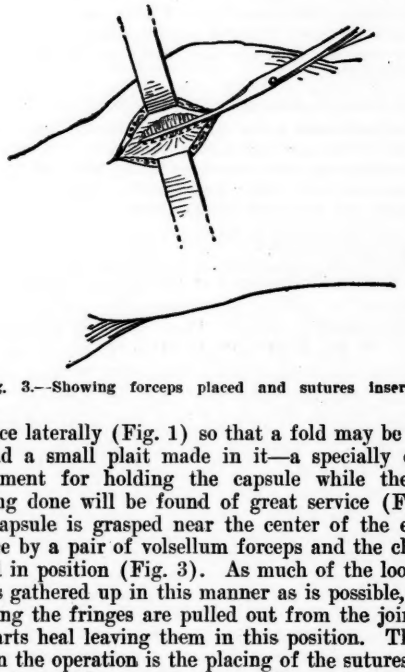

Fig. 3.—Showing forceps placed and sutures inserted.

distance laterally (Fig. 1) so that a fold may be picked up and a small plait made in it—a specially devised instrument for holding the capsule while the work is being done will be found of great service (Fig. 2). The capsule is grasped near the center of the exposed surface by a pair of volsellum forceps and the clamp is placed in position (Fig. 3). As much of the loose capsule is gathered up in this manner as is possible, for by so doing the fringes are pulled out from the joint, and the parts heal leaving them in this position. The next step in the operation is the placing of the sutures. The clamp is raised as much as possible, and sutures are passed through the capsule and synovial membrane on a line just below and parallel with the clamp. After this has been securely sewed, the capsule is cut with a pair of scissors or a knife between the clamp and the line of sutures. This leaves a cut margin nearly two inches in length, which consists of capsular tissue on the outside with synovial membrane lining it. The edges of this cut surface should be sewed together by a fine suture

which buries the synovial border. The skin is then closed and a splint which keeps the leg fully extended is applied.

It has been found best to keep the part in this position about one week. The whole after-treatment consists simply of placing the joint at rest until healing has taken place. Motion is not restricted by such an operation, and a few days after the removal of the splint the joint is practically normal.

The advantage of this operation over the free incision into the joint with removal of the fringes is readily seen by anyone familiar with the work, and may be summed up as follows: A large part of the danger from a more extensive operation is removed; complete recovery is better assured; and the long after-treatment with its attendant discomforts is avoided.

HIP-JOINT TUBERCULOSIS: ITS EARLIER SYMPTOMS AND TREATMENT.

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In cases of tuberculous hip, beginning insidiously, a limp is the first thing to attract the attention of the parents. It may be that this limp will disappear in two or three weeks, only to return after a varying interval up to three months. As a rule it is slowly progressive until a marked degree of disability exists.

Stiffness in the joint on the side affected may now be noticed, and any irritation of the joint causes an involuntary contraction of the muscles which resist any effort that is made to move the limb. The joint is held firm by these muscles, thus causing the pelvis to move with the limb. This muscular spasm is present in many forms of inflammation of the joint, but its catchy character and persistence are the strongest points in the diagnosis of hip disease. Hyperextension and rotation are the two motions most likely to be first restricted.

Atrophy of the affected limb is an early symptom and is due to disuse and trophoneurotic disturbances. This atrophy is more noticeable in the thigh than in the calf.

Shortening begins after the earlier months and gradually increases, migration of the acetabulum and bone atrophy accounting for the major part of the shortening. In the latter part of the course of the disease the foot on the affected side shows that it is smaller and shorter than the other foot, proving that it shares in the atrophic process. The patient often cries out during the night, especially the earlier part, because on friction of the diseased parts during sleep the muscles contract sharply and quickly force together the diseased bones, causing pain. The more severe the disease the greater will be the night cries. In milder cases the child often cries out but does not awaken. Night cries indicate pain in the joint, but under conditions of non-protection, and are always referred to the joint.

Pain in the knee joint, at the inner side, is a typical pain of early hip disease, this pain being reflex in character, as the hip joint and knee joint are supplied by the same nerve. Unless great care is exercised in your examination, a common mistake will probably occur, and you will apply treatment to the knee instead of to the hip, where the diseased area is located. An incomplete examination is often fruitful of serious and preventable disability and deformity. Local pain rarely begins until the disease has extended from the bone to the joint structures. If pain continues after you have protected a joint you may feel sure that there is some joint effusion or a burrowing abscess to be found.

Temperature is no positive index to the disease, but a high fever of 103 to 104 F. indicates a rapidly destructive type of the infection. Even abscess formation does not affect the temperature to any appreciable degree.

The usual position in a painless case of hip disease is abduction, flexion and outward rotation, but if the infection be acute and painful the limb assumes the position of greatest self-protection, viz.: abduction, flexion and inward rotation. Badly treated cases usually result in flexion and adduction, which may be explained by the fact that the upper rim of the acetabulum becomes worn away by the intrajoint pressure, and the socket is above and behind its former site, forming a dorsal dislocation with an exaggerated adduction due to a total or partial loss of the head of the bone. Abscess may be present early in the acute form, but in milder cases only after some months, if at all.

Just behind the trochanter a fulness may be felt, even before the capsule has ruptured. When the abscess points in the adductor region, or above the crest of the ilium, it strongly indicates a perforated acetabulum. The limp, which may be intermittent, restriction of motion due to the reflex muscular spasm, pain at the inner side of knee, night cries, postural deformity of the limb, and early atrophy of the muscles of the limb, are about the earliest symptoms of hip-joint tuberculosis. Naturally in our treatment of hip-joint disease we desire, first to prevent motion of the hip; second, to relieve pain and muscular spasm, and, third, to prevent deformity and care for abscesses as they arise.

There are in use for the treatment of an early case of hip disease a great many temporary makeshifts which I will not mention, for what we want is plenty of fresh air and sunshine along with the most effective treatment possible. One of our best means of fixation and protection of a diseased hip joint is the plaster-of-Paris spica bandage, when it is carefully and properly applied. If the disease is very active it may become necessary to keep the patient in bed for a few weeks, but if it is not very painful to the patient he may be allowed to walk about. As the activity of the disease lessens the foot need not be included in the plaster, and finally as a recovery splint the cast may extend only from the pelvis to just about the knee.

Many braces are being used, among them the Thomas hip splint, the Taylor brace and Sampson hip brace. These last two braces are employed to make traction during locomotion. The Cabot wire frame is especially adapted for use with baby patients.

Try to prevent abscesses by keeping the patient as quiet as possible, if the disease seems active; but if an abscess does occur, put the patient to bed until the painful symptoms disappear. When walking, crutches may be allowed. With the system of quiet and protection nearly one-fourth of the abscesses will disappear. If an abscess seems certain to open, if left alone, it may be incised at the point most suitable for drainage. A mixed infection is shown by a fever of 102 to 103 F., redness and heat over the abscess and an increase of the white cells of the blood, which you do not get in a tuberculous infection alone. When sinuses form, dress them as infrequently as possible.

Mechanical treatment gives the best results. Excision

of the hip should be regarded as an operation of necessity only, and amputation is employed as a life-saving measure. From nourishing food, plenty of fresh air and sunshine, good hygienic environments, along with conservative treatment, we may hope to get the best possible results.

SERUM TREATMENT OF GONORRHEA WITH REPORT OF CASES.

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CHICAGO.

In January, 1906, Torrey[1] of Cornell University made a report on the use of serum in the treatment of gonorrhea. At this time he stated that he had been able to effect a cure in acute gonorrheal infections of the prostate, epididymis, joints, etc., but had not been able to cure gonorrheal urethritis. I can not understand why a serum should be effective against infections with the same organism in some tissues and not in others, and in the following report I think that I have been able to demonstrate beyond any doubt that this serum is extremely useful in the treatment of toxemic conditions following a gonorrheal infection, but not in the acute infections with this organism.

Antigonococcic serum, used in these observations, is produced as follows, according to the method described by Rogers and Torrey. Cultures are grown for from eighteen to twenty-four hours on large slants of ascitic agar. Culture tubes average one inch in diameter. It is essential to obtain a luxuriant growth. This is best accomplished by planting from an eighteen to twenty-four hour stock culture to medium of the following composition:

Meat peptone 2 per cent. agar is prepared in the usual way and titrated 1.5 per cent. acid to phenolphthalein. One part of rich sterile ascetic fluid is then added to two parts of the agar. The full grown uncastrated male sheep (the ram) only is used. In immunizing these animals it has been found advantageous to pursue the following plan:

The first inoculation may consist of the twenty-four hour surface growth, from eighteen square inches of solid culture medium, emulsified in about 30 c.c. of normal saline solution and heated for about one-half hour at 65° C. In immunizing rabbits and goats, a potent serum was obtained, but it was found that the serum itself is decidedly toxic for some individuals and produced rather alarming reactions; hence, only rams are used. The immunization of the ram requires ten weeks, one injection being given weekly. The animal is bled to death from the carotid and the serum collected, filtered and tested for sterility. The serum is polyvalent.

The method of administration is by subcutaneous injection, the skin being prepared as for other subcutaneous injections. The abdominal wall was used in all cases, because the reaction which follows almost every injection is better tolerated in this part of the body.

The amount given at each injection varied from 2 to 6 c.c. The injections were given from forty-eight hours to seven days apart, depending on the severity of the reaction. A reaction follows almost every injection, appearing sometimes in the form of a slight urticaria at the site of the injection, at other times in a more severe form accompanied by a dermatitis, enlargement of the inguinal glands, rising of temperature from one to two degrees, and an increase in the pulse rate. Most of these symptoms disappear in from twenty-four to forty-eight hours. In one case, however, the urticaria and dermatitis extended over the entire body with a high temperature and rapid pulse, and continued for nearly five days. The absorption of the serum is rapid; the tumor which follows the injection disappears in about fifteen minutes.

Fifty-two cases including almost every form of gonococcus infection were injected with this serum. Of this number 45 were treated in the clinic at Rush College; 7 were private cases. I will not give a history of each individual case, but will divide them into six groups, as follows:

1. Acute gonococcus infection of the anterior or anterior and posterior urethra, with or without infection of the prostate and seminal vesicles.
2. Subacute gonorrhea of the anterior urethra or anterior and posterior urethra.
3. Chronic gonorrhea of the anterior urethra or anterior and posterior urethra.
4. Acute gonococcus infection of the epididymis.
5. Acute gonococcus infection of joints.
6. Chronic gonorrheal joints.

Of the first group, namely, the acute gonococcus infection of the anterior and posterior urethra, I injected seventeen individuals. These patients were given the maximum dose, 6 c.c., as frequently as the reaction would allow, without any change in the discharge from the urethra or other symptoms.

In Group 2, subacute gonorrhea of the anterior urethra or anterior and posterior urethra, nine patients were injected. Eight of these did not show any improvement after repeated injections, one cleared up after the third injection.

In Group 3, chronic gonorrhea of the anterior and posterior urethra, eleven patients were injected. Seven did not show any improvement; one cleared up after eight injections given during a period of four weeks; one after six injections given during a period of three weeks, and two passed clear urine after four injections given during two weeks.

In Group 4, acute gonococcus infection of the epididymis, four were injected. Three did not improve so quickly as usually seen with local treatment. In one case the swelling subsided in two weeks without the return of the discharge from the urethra; this patient received six injections of 4 c.c. each.

In Group 5, acute gonococcus infection of joints, four were injected. Two of them were aspirated and the gonococcus demonstrated. One patient is under treatment at the present time; three did not show much change.

Group 6, chronic gonorrhea of joints, included seven patients. All improved promptly after the first few injections.

I will give a brief history of three of the most severe cases in this group.

CASE 1.—Male, aged 45, contracted gonorrhea twenty-two years ago.

***History.*—About four months later both feet became very painful, so that he was hardly able to walk. Four years later he again contracted gonorrhea, which was again followed by pain in both hip joints. From this time on, he was never free from some pain, although it was not of a very severe character. In June, 1907, he was again infected. A few weeks after, his right ankle joint became very painful and was followed shortly by pain in the left ankle joint. He entered the clinic at Rush College on November 25.**

1. THE JOURNAL A. M. A., Jan. 27, 1906, p. 261.

Treatment.—On this day he was given an injection of 2 c.c. of serum. This was followed by slight reaction, but no perceptible improvement. Second injection of 4 c.c. was given December 2, and was followed by a severe reaction and slight improvement. A third injection of 6 c.c. was given three days later. This was followed by a very severe reaction, but the joints greatly improved. After this he was given three injections, 4 c.c. each, at seven-day intervals.

Result.—Since the third injection he has been almost free from pain. At times he complains of a slight tenderness in both heels, which I think is due to adhesions of the articulations of the os calcis.

CASE 2.—A male, aged 24, contracted gonorrhea six months ago.

History.—Two months after infection the right knee and hip and left ankle joint became extremely painful.

Treatment.—He received his first injection November 29; 2 c.c. were given without any change in his condition. December 3 a second injection, 4 c.c., was given, followed by marked improvement in all involved joints. December 8 he was given a third injection, and the following day he reported that he was absolutely free from pain.

Subsequent History.—Thinking he was cured, he did not return to the clinic until January 3, when he again appeared, hardly able to walk. He was given four injections of 6 c.c. each, at forty-eight-hour intervals. He showed decided improvement after each injection and at present is free from pain. I consider this case instructive, because when he left the clinic after three injections he had been given a total of 12 c.c., which gave him relief, but evidently was not sufficient for a permanent cure. On his return, he was given four injections, a total of 24 c.c., with the result stated above.

CASE 3.—Male, aged 25, contracted gonorrhea in 1900.

History.—After months of treatment for the local condition, his right knee joint became slightly swollen and very painful. This was followed in a short time by involvement of both ankle joints. After a course of baths at Hot Springs, his condition improved for a short time, only to be followed by an extension of the disease into almost every joint in the body. He consulted me in the latter part of August, 1907.

Examination.—I found a slight gleety discharge from the urethra, which contained gonococci in small numbers. The joint condition was so aggravated at this time that he was only able to walk by the aid of two canes. This had been his condition almost constantly for seven years.

Treatment.—After ten weeks of local treatment, the urethral discharge disappeared, but with only a slight improvement in the joints. November 21 he received the first injection of serum. Two c.c. were given, followed by a second injection of 4 c.c. at the end of forty-eight hours. The following day he developed a slight urticaria at the site of the injection and was somewhat improved. A third injection of 6 c.c. was given November 27, followed by marked improvement. Two more injections of 6 c.c. each were given November 29 and December 2. On December 3 and 4 he suffered from rather a severe reaction, after which the pain in his joints almost entirely disappeared. Three weeks after he received the first injection, he entered the service of one of the express companies and was able to do this work during the holiday rush, which, I think, describes the change in his condition better than words.

CONCLUSIONS.

The conclusions to be drawn from this report I think, are very clear: First, the serum has absolutely no effect on acute gonorrheal infections, whether they exist in the lower urinary tract or in any other part of the body. Second, its value in subacute and chronic cases is very doubtful, although there were a few isolated cases in which the results were somewhat better than we see with local treatment. Third, the value of this serum in the treatment of chronic gonorrheal joints is without question. In the past, these painful joints accompanying and following gonorrhea have been most resistant to treatment, both local and general, and I feel that we now have a remedy which will give rapid and permanent relief to the sufferers from this common complaint.

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SPINAL SPRAIN.

ITS COMPLICATIONS AND CONSEQUENCES, WITH REPORT OF CASES.*

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The object of this paper is to review from a practical and clinical standpoint the general subject of sprain of the spinal column, and to call attention to the value and frequent necessity of fixation of the spine. I will divide the cases into three clinical groups: (1) Sprain; (2) sprain followed by neurotic symptoms, and (3) sprain accompanied by spinal cord symptoms. Excluded entirely from the list are sacroiliac conditions, so often due to injury, Kummell's spondylitis, the ordinary neurasthenic spine which may originate in a slight trauma, spondylolisthesis, and cases of mild traumatic lumbago which promptly recover when treated by rest, heat and poultices.

CAUSE.

The injury that originates a true sprain of the spine is more often indirect than direct. In 17 of my 26 cases the cause was a fall on the buttocks, a fall on the feet, prolonged lifting, or a violent wrench of the body, causing sudden flexion of the spine. In 9 of the cases the cause was direct violence to the back itself. The site of trouble is more often at the lumbo-dorsal region than at that other movable section, the lower part of the neck. In 19 of the cases the lumbar portion of the spine was affected, and in 7 the lower cervical. Brush, in a collection of 43 cases, found the condition located in the lumbar region in 38 of them.

PATHOLOGY.

As the pathologic changes are those of sprain, and as it may exist in any part of the column, spinal sprain is a more appropriate term than the popular one of traumatic lumbago. As a result of the wrench received the ligaments about the spinal column are torn, with a laceration of muscle and fibrous tissue. A number of the smaller joints are involved. In the dorsal region the junction of the ribs with the transverse processes may be strained. There is an exudation of blood and serum into the surrounding tissues. As the muscles are deep-seated, swelling and ecchymosis are rarely to be seen, unless there has been direct contusion to the back. The muscle is occasionally ruptured close to the surface of the body, so that the finger finds a depression, tender to the touch. After tearing of the ligaments within the spinal canal, a blood clot is apt to press on the cord, a condition called hematorrhachis.

The spinal cord may be affected in various ways. Sometimes temporary loss of function for a few days ensues, then rapid recovery, due, according to some neurologists, to supposed concussion of the cord. Hemorrhage within the cord, called hematomyelia, may be diagnosed by lumbar puncture, as the blood remains liquid from admixture with cerebrospinal fluid. Hematomyelia is most apt to occur in the cord in the lower cervical region. A meningitis or pachymeningitis may be aroused. The commonest cord condition is a zonal

* Read before the Buffalo Academy of Medicine, March 3, 1908.

paralysis, or mild transverse myelitis, from which recovery is partial or complete. No classic clinical picture can be drawn, as most of the cases differ according to the lesion in the cord.

There may be other injuries associated with the spinal injury, and the commonest of these is fracture of the ribs.

SYMTOMATOLOGY.

1. *Simple Sprain.*—These patients, as a rule, do not regard themselves as seriously hurt at first. Many will continue at work for a few days. Then increasing symptoms compel them to rest. Backache, localized about the spine, or radiating forward or down the hips, becomes more pronounced. The pain lessens or subsides when the spine is at rest, but on motion of the head or extremities is reproduced, and is most pronounced on getting up from a chair or on bending forward. When the strain has been severe, nature attempts to control spinal motion by muscle spasm. Then the large movements of the back are limited, and on attempted motion the lumbar lordosis remains fixed and the muscle groups stand out rigidly under the skin. Unless fixation by support is provided, the spasm may finally involve most of the muscles of the body and with this the knee jerk becomes exaggerated and ankle clonus may be induced, exclusive of cord lesion. Such a patient moves about with the greatest difficulty. He arises from a chair by pushing with the hands on the arms of the chair or on his thighs. He walks with head and shoulders bowed forward, or with a straight "poker" attitude, or with a lateral tilt to one side, in that way finding the posture that is least painful. Constipation and partial retention of urine may be induced because the movements of the diaphragm and abdominal muscles cause pain.

In case muscle spasm has not developed, the spinal motions are often voluntarily limited because the patient knows they will produce pain. Deep tenderness over the erector spinæ on both sides of the column is to be found. General hyperesthesia over the entire back and over the spinous processes may accompany marked spasm.

Tenderness is a subjective symptom, and a well-known test is to count the pulse before, during, and after pressure on a tender point. Increase in the rate during pressure makes this symptom objective. As there is no change in the pulse rate in some of the cases where there is real tenderness, the test is not of great value in detecting simulation. This sign may also be found in cases of hysteria. The continued pain, lack of appetite and sleepless nights interfere with nutrition, and the weight may be lessened as much as thirty to forty pounds. The face becomes drawn and anxious and the circulation poor. In fact, the patient may appear to be a complete physical wreck.

2. *Sprain Followed by Neurotic Symptoms.*—In these cases the injury is of milder grade and as the effects subside, neurasthenic or hysteric symptoms appear and continue. Subjectively there are backache, tenderness over the back, ribs and certain spinous processes, pain on motion, with a variety of other complaints. Objectively, there may be muscular weakness and tremor, a lively knee-jerk, a positive Romberg test, rapid pulse, emaciation, and vasomotor signs, such as flushing, sweating and cold extremities. In hysterical cases, anesthesia of skin and mucous membranes, and contraction of the visual fields may be found.

3. *Sprain Accompanied by Spinal Cord Symptoms.*—After a variable period, there is a slow or rapid onset of cord signs, in different groupings, according to the lesion. These symptoms are radiating pain, girdle sensation, partial or complete anesthesia, partial or complete paralysis, ataxia, change in the reflexes, and sphincter troubles.

DIAGNOSIS.

In examining a case, after consideration of the history and the subjective symptoms, the patient is watched to see if there be change in posture, a stiff gait and a drawn facial appearance. His method of getting in and out of a chair, of standing with the eyes shut and of raising the knees alternately is observed. The contour of the spine is noted and local tenderness sought. The spinal motions are investigated, and, if limited, whether the limitation is due to pain or spasm. It must not be forgotten that wryneck and spasm of the cervical muscles may simulate a Pott's disease, the diagnosis being confirmed by the result of treatment. Note is made of the condition of the reflexes and sensation.

In the neurotic cases, a diagnosis must be made largely from the grouping of symptoms and not so certainly by objective signs. It is easy for malingerers to counterfeit the "railroad" spine, and the objective signs given under symptomatology may alone point to the diagnosis.

PROGNOSIS.

The outlook is much better if the diagnosis is prompt, and treatment is instituted early. When fixation by jacket is indicated by great pain or spasm, it is most unwise to defer it. Brush[1] states that in 14 cases in which the diagnosis was made at once and proper treatment begun, there were 8 full recoveries. Whereas in 29 cases with delayed diagnosis and treatment, there were but 2 recoveries. In general, it is much better to settle an impending suit rather than to wait for trial, but settlement should be deferred until one can feel sure about the future condition of the patient. In Case 9, cited below, a prompt settlement for $500.00 was made for contusions and shock. Three weeks later, a myelitis developed, followed by paralysis of arms and legs. After prolonged legal work, the case was finally reopened and a large settlement effected.

TREATMENT.

In practice it is found that the physicians in charge of these cases are slow in coming to the conclusion that rest in bed with counterirritation to the spine is ineffectual in the severe types of sprain. A plaster jacket for several weeks is the most comfortable and rigid splint, to be followed by a removable leather or celluloid jacket. It is most strongly indicated where there is spasm, but also is often indicated where there is only pain on motion or in cases where there is no pain but where cord symptoms are developing. In neurotic cases a light temporary support acts favorably. There is not the same danger of prolonged stiffness following, such as may result from fixation of a sprained ankle. Massage, exercises, and avoidance of lifting, bending, and riding in cars are in order later on. The support is left off at night and a small pillow is placed under the small of the back to fix the lumbar curve. For spasm of the neck muscles, head traction in bed, followed by a jacket with a head support brings prompt results.

It is often agony to the patient to attempt to put on the first plaster jacket by means of suspension in the Sayre apparatus. The patient should be lying on the

1. N. Y. State Jour. Med., May, 1904.

back, the head and legs on pillows, and the shoulders, sacrum and lumbar region held up from the bed or table by one of the many simble portable appliances now in use, and described in orthopedic works under the treatment of Pott's disease. I prefer the apparatus described by E. W. Ryerson,[2] of Chicago. This is made of four short bars of soft iron, bent to form two capital T's, the ends sitting into a small gas-pipe, which is fastened to two plumber's wall-sockets, which in turn are screwed to a small board. One can devise a support by procuring two pieces of soft steel, about twenty inches long and one-half inch broad, bending them to fit the patient's back, and resting the ends on two small piles of books covered by paper. The pieces of steel are laid parallel so that they will touch the muscles on each side of the spine. The patient is lifted on to this arrangement, over which a strip of cotton or felt is laid. The bandages include both trunk and steel. After the jacket hardens the pieces of steel are pulled out from under the plaster.

Romer[3] cites 6 cases in which continued pain, tenderness, and stiffness over a small area indicated adhesions. Forcible trunk movements during anesthesia, followed by massage, cured these patients. Moullin,[4] for the same condition, advises quick motions without an anesthetic while pressure is applied over the painful area.

For neurotic cases, the usual treatment of neurasthenia or hysteria is followed. In addition, rest, spinal douches, ergot, electricity, and sometimes a spinal support are indicated for the back. Settlement of the suit acts most favorably.

In cord cases, contractures and bedsores are to be prevented; the sphincter conditions need treatment, and massage and electricity are given for palsied muscles. Murphy[5] states that early lumbar puncture may relieve paralysis due to hematomyelia.

I have seen 26 cases of spinal sprain of which the following 10 cases are typical examples.

CASES OF SIMPLE SPRAIN.

CASE 1.—*History.*—Schoolgirl, aged 13. Two weeks before while sliding on the pavement, this girl slipped and sat down with considerable force. In spite of the wrench she continued to go to school. Every day the backache and pain on motion increased until she had to leave school and lie on the sofa all day. Pain kept her awake and crying the greater part of each night.

Examination showed a strong, well-built child, with all spinal motions prevented by marked muscle spasm. Any attempt at motion caused great pain.

Treatment.—A close-fitting plaster jacket was applied and in three days all pain ceased and she could attend school and play out of doors in perfect comfort. When the jacket was removed six weeks later, normal conditions were found.

CASE 2.—*History.*—Man, aged 38. General health excellent. Two years previously this man had been in a runaway accident. He was thrown from a buggy and struck a telegraph pole which caused sudden violent flexion of the head, wrenching the upper back muscles. Since the accident he had always had a dull heavy pain in the back of the neck and between the shoulders. This pain was worse some days than others, and was aggravated by bending forward, by riding, in a car, or by writing at a desk. He could work only a portion of each day, being compelled to go home and rest in the afternoon. He had been treated by static electricity, vibration, osteopathy, rest, prolonged vacations, and the use of eyeglasses, without relief.

Examination.—There was no muscle spasm, but all motions distressed him. Well-marked tenderness existed from the occiput downward over both trapezii as far as the mid-dorsal region. Lifting under the chin and occiput relieved his dragging pain.

Treatment.—Faradism and the cautery were given a trial first. Then traction in the afternoon and night by weight and pulley. Then hot air bakings. Finally a leather support was made, embracing chin, occiput and chest. This was worn every evening and Sundays for many weeks, but not during the day to his office. The fixation and rest afforded by the jacket cured him entirely of his aching and tenderness. This case was interesting on account of the long period of pain, the location of the trouble, and the failure of local treatment.

CASE 3.—*History.*—Man, aged 26, a railroad engineer. While sitting on the window-ledge of his cab the boiler of the engine exploded and he was blown out of the window to the ground. Pain in the back followed and he was confined to his bed for three months, unable to stand. While quiet the pain would cease, to return on any attempted motion. He had lost flesh and strength and his sleep was disturbed by attacks of pain. Bowels costive and urine held as long as possible.

Examination.—When first seen he was lying back in a large chair supported by pillows. He needed assistance to sit up and helped himself by bracing his hands on the arms of the chair. Violent spasm appeared all over the body, even the face being contorted. There was tenderness to pressure over the back. The knee jerks were increased, but ankle clonus was absent. Sensation good.

Treatment.—Fixation was imperative and improvement began as soon as a jacket was put on. In three weeks he could get about without assistance and the spasmodic pain had disappeared. In six months he could do light work. When last seen his only complaint was some pain across the lower back on stooping forward. This case was unusual on account of the excessive spasm which nearly resembled a tonic convulsion.

CASE 4.—*History.*—Man, aged 34, driver of a fire engine. While driving to a fire this man was thrown from his seat to the asphalt. The back and left hip were violently wrenched. Constant pain followed across the lower back and into the left thigh.

Examination.—When seen, three months later, he was able to limp about slowly. There were diffuse tenderness, marked rigidity and spasm, ataxia, and increased superficial and deep reflexes. Sensation and bladder control perfect.

Treatment.—For three months he wore a plaster spica from the axillæ to the left knee, and then a leather jacket. In one year he could do light work. He has continued to suffer during the past two years from the same symptoms in a modified form, but to a lessening degree. He can do full work but only with the aid of a jacket.

CASE 5.—*History.*—Man, aged 35. While running to a fire in the evening, this man came to a drop of about eight inches on the level of the ground. The loss of support for his foot caused a violent jerk of the head. He continued his occupation for a time, in spite of pain localized about the upper dorsal vertebræ. He lost twenty-four pounds in weight, shifted his trunk to the left to relieve strain and became unfit for work. The pain continued day and night for two years.

On *examination* there were evident a curvature to the left, tenderness alongside the upper dorsal vertebræ, but no spasm or cord symptoms.

Local *treatments* having proved useless, a spinal brace with head support was ordered and worn for nearly a year. By that time the aching was rarely in evidence and the curvature had disappeared. Some months later he returned to work.

CASES OF SPRAIN FOLLOWED BY NEUROTIC SYMPTOMS.

CASE 6.—*History.*—Girl, aged 17. One year before examination she slipped and sat down forcibly on a stone step. She remained in bed for three weeks, suffering from pain over the sacrum. Later, pain in the back began, often sharp in character. She had eight falls, due to general weakness. She slept badly and had nightmares. She lost twenty pounds in weight.

Examination.—The spine showed normal motion, but tenderness from the sixth to the twelfth dorsal spines. Anesthesia

2. Amer. Jour. Orthop. Surg., April, 1907.
3. Lancet, Lond., Feb. 18, 1905.
4. Sprains, Consequences and Treatment, N. Y.
5. THE JOURNAL A. M. A., March 2, 1907.

of the skin and of the mucous membranes of the eye, nose and pharynx was found.

Treatment.—In six months, under tonic treatment and fixation by jacket, she was practically well, except for disturbed sleep and nervousness.

CASE 7.—*History.*—Man, aged 45, of large and strong build. One year before examination this man was struck across the back of the neck by a heavy plank of wood. A few days later a complete paralysis and loss of sensation of the left side of the body set in. He suddenly recovered at the end of three days and returned to work. Some months later, while bending over and straining his neck, he found himself unable to stand or get up, but after being helped up, regained his strength. This recurred several times. Strong cauterization of the neck and back with suggestion ameliorated the condition.

CASES OF SPRAIN ACCOMPANIED BY SPINAL CORD SYMPTOMS.

CASE 8.—*History.*—This man, aged 38, was thrown violently forward, then backward, in a trolley collision. He thought he was not hurt, and aided others who were injured. Backache and headache set in the next day and he was in bed for six weeks. Walking became difficult and any exertion caused great pain. For the next six months he was in a very weak condition, temperature averaging 95 to 98 degrees, and his pulse about 32. Headache and backache were his chief complaints.

Examination.—When seen there were exaggerated reflexes, weakness, and spasticity in the legs, but no sensory symptoms. Tenderness from the third to the eighth dorsal spines and pain on motion were the local symptoms.

Treatment.—With fixation he began to improve, and two years later had recovered and could do a full day's farm work.

CASE 9.—*History.*—Woman, aged 52, weight 92 pounds. By the sudden jerk of a train, she was thrown from the step to the platform, striking her left side. After several days in bed she went to a sanitarium to recover from the nervous shock. Pain in the upper spine, mild at first, reached a climax in six weeks, when general weakness set in, with radiating pains.

Examination.—When examined a few weeks later, there were found partial palsy of both arms and legs, dulled sensation in the same, exaggerated reflexes and muscle spasticity. The sphincters were not affected. There was tenderness over the back of the neck, and the fourth and fifth cervical spines were rather prominent and tender. The mental condition had changed, there being loss of control over the emotions, poor memory, and reasoning power.

Treatment.—Extension to the head by weight and pulley, with fixation by small pillows under the neck formed the main treatment. Improvement soon set in, and in four weeks sensation returned; the reflexes were lessening and power increasing. A leather jacket, with head piece, was given her, and she began to sit up and get about. During the next six months all cord signs disappeared, but poor mental control persisted. She could go about alone, wearing her support. During the past two years she has remained feeble, nervous and depressed.

CASE 10.—*History.*—Man, aged 61. This man was nearly crushed in a collision between two trolley cars, three ribs being broken close to the spine, and his body covered with bruises. Very soon paraplegia and retrocolic spasm appeared. His general health suffered. Incontinence of urine and constant diarrhea aggravated his condition.

Examination.—When seen about a year later, as he sat in an armchair, supporting his head against the back of the chair, his face showed constant suffering. On leaning forward, clonic contractions of the neck muscles caused retrocolic spasm. The speech was jerky and interrupted. The reflexes exaggerated and anesthesia evident to the middle of the abdomen. The spine was tender to the neck and held immobile by spasm. His complaints were backache, headache, girdle sensation, vomiting, diarrhea, and urinary incontinence. Six months later the health had improved a little. He could get about the house with crutches; the wryneck had lessened; the reflexes had subsided. Two years later there was further gain. The left knee jerk was exaggerated and the right normal. Sensation had partly returned. The wryneck, the incontinence and the ataxia were barely noticeable. Backache, girdle sensation and some spasm troubled him. Fixation by jacket would have been beneficial, but was not urged by the attending physician and was objected to by the patient on the ground of expense.

ARE THERE VALID OBJECTIONS TO THE QUININ PROPHYLAXIS OF MALARIA?*

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As with many other important questions the matter of quinin prophylaxis of malaria is largely one of compromise. Do the good results obtained under certain conditions hold generally, or are there exceptions—are there valid objections to its use other than the generally recognized one of preventing exact diagnosis?

In the first place, the ease of its application as compared with the better methods of mosquito destruction and screening, appeals to the sanitarian, especially in the tropics. It is just as easy to give quinin to a man in the tropics as it is in temperate climates, but when you consider the propositions of draining tropical swamps and shutting off circulation of air on a torrid night with fine wire gauze in the windows and closely woven mosquito nets around the bed, the question is decidedly different. In consequence, the tendency would be for the average man to despair of accomplishing anything in the way of mosquito destruction and screening and to seize eagerly on the inferior alternative, that of quinin prophylaxis.

Ronald Ross presents this matter concisely and to the point when he states that it is not a good policy to substitute a measure which does not exclude infection, but is merely extirpative in some cases, for positive prevention. From this it will be seen that unless it is clearly recognized that quinin prophylaxis may in some cases extirpate, but does not prevent, there might be a tendency to adopt this measure and neglect the two proper ones.

As regards the relative merits of quinin prophylaxis and protection from mosquitoes Celli gives the following figures:

TREATMENT.	INFECTED.
Mosquito protection plus quinin prophylaxis.	1.75 per cent.
Mosquito protection alone	2.5 per cent.
Quinin prophylaxis alone	20. per cent.
No protection at all	33. per cent.

In 1895, I served as medical officer of the Ludlow Nicaraguan Canal Commission. It was my intention to recommend that members of the party take quinin as a prophylactic. On arriving at Greytown, I consulted with a physician who had been on the medical staff of the Nicaraguan Canal Company, and acting on his advice, I decided against quinin prophylaxis. He stated that their experience had been that quinin in doses that could be well borne had little effect in preventing the development of the disease; also, that it appeared to them that persons who had been taking quinin prophylactically were less amenable to its curative effects and that relapses had appeared to be more common in those following such practice than in those who only received the drug at the time of a malarial attack.

* These statements are in substance the remarks made in the discussion of the paper of Prof. Thayer on Quinin Prophylaxis at the meeting of the American Society of Tropical Medicine, March 28, 1908.

While in camp along the canal route we had a few cases of malaria. These were immediately treated with large doses of quinin, and without exception they responded promptly and satisfactorily to such treatment. The only member of the party who insisted on taking quinin prophylactically was Colonel Ludlow, the head of the commission, and strange to say, he was the only one who had malaria on the trip home.

To those who have thought of quinin prophylaxis as a true preventive the following instance is instructive: On May 20, 1906, a battalion of marines, numbering 398, was organized at Philadelphia. Seventy-five per cent. of the force was made up of recent recruits from the Middle West. Leaving Philadelphia May 21, Colon was reached May 28. On June 4 the battalion was disembarked at Colon and stationed for a time at Camp Elliott, which is situated about 25 miles from Colon and which was comparatively free from mosquitoes. Later on, three companies were stationed at Camp Reed, five miles from Panama, at which place mosquitoes were numerous and troublesome.

On July 6, after a service of practically one month on the Isthmus, the marines returned to the ship (U. S. S. *Columbia*). During the month's encampment, 9 grains of quinin had been served out daily as a prophylactic. In addition, such measures as head-nets for those on night sentinel duty and inspection of mosquito nets about men sleeping in tents had been in force. There was very little malaria reported from these men while on the Isthmus.

The ship sailed from Colon on the night of July 7. On the first day out 20 cases of malaria were admitted to the sick list, the next day 53, and the third day 45. In consequence of what appeared to the medical officer to be universal infection among the men, ten grains daily of quinin were administered to every one as a prophylactic. Notwithstanding this almost curative dosage of quinin the condition of the men was such when the ship arrived at San Juan, July 13, that it was deemed necessary to get the men out of the tropics as several cases of a pernicious type and two of blackwater fever had appeared. Accordingly the ship sailed for Boston July 16.

Notwithstanding the prophylactic use of quinin, under military observation, for those who were not cinchonized, there were 215 acute malarial paroxysms among 298 men during the five days' trip from San Juan to Boston. About 100 men of the original 398 had been transferred to other ships and stations prior to the sailing of the *Columbia* for Boston. The character of the paroxysms was atypical—there was no frank chill. The men would feel fairly well until shortly before an attack—they would then complain of chilliness and weakness and either lie down or fall down in a heap on deck. Passed Assistant Surgeon Butler, U. S. N., states in a report that when the men arrived at Boston so many were anemic and weak that they were unfit to return to the tropics. Dr. Butler also noted the fact that these cases did not seem to respond at all satisfactorily to quinin even when given hypodermatically. Before the cases became so numerous blood examinations were made and the form of malaria was considered to be chiefly tertian. The clinical features, however, would indicate that there was estivo-autumnal infection in many of the cases.

In considering the experience of these marines who were given prophylactic, I might even say curative, doses of quinin during a period just exceeding a month, and when this was discontinued during the days of July 7, 8, 9 and 10, showed an extensive malarial morbidity, the question naturally presents itself as to the explanation of this. Furthermore, we must note the fact that resumption of quinin prophylaxis at this time in those not cinchonized apparently had little effect in checking the outbreak, and that when quinin was administered in curative doses, at times hypodermatically, it did not seem to control the infection as is usual. It is common experience that malaria responds readily and promptly to quinin properly administered. I can not but believe that malarial parasites may develop a resistance to quinin.

Browning, reporting recent work in Ehrlich's laboratory, states that when mice infected with trypanosomes were not given sufficient doses to destroy the flagellates, these protozoa developed a resistance to the therapeutic agent during the time their development was held in abeyance. A most startling discovery was, too, that these trypanosomes retained their chemo-resistance through numberless generations. After passage during a period of fourteen months through 144 mice these last generations of trypanosomes still retained their immunity to the exciting drug. Browning experimented with atoxyl, parafuchsin and trypan blue. Experiments with paramecium have also shown that these ciliates may develop marked resistance to agents primarily toxic to them.

I have seen actively motile amebæ in the stools of people undergoing quinin irrigation of the colon. I had generally considered that the explanation was that mucus had protected them from the toxic action of the quinin. May it not have been that these amebæ had developed resistance to quinin during the extended use of the remedy? Does it not seem that the malarial parasite may develop a resistance to a toxic influence which holds them in abeyance but does not destroy?

Another important consideration is that not only is the chief means of correct diagnosis, the finding of the parasite in the blood, made uncertain or useless, because it is common experience that even a single dose of quinin will drive the parasites from the peripheral circulation, but the frank manifestations of the malarial paroxysms are masked so that clinical diagnosis also is made difficult. When one considers the insidious and rather uncharacteristic paroxysms of estivo-autumnal fever this difficulty is more apparent. In this connection, the physician above referred to considered that as a result of failure to recognize malaria clinically institution of curative measures was delayed, and that as a result, the disease was more difficult to treat and relapses were more frequent.

Now at that time (1895) we did not know about parthenogenesis on the part of the macrogametes. Thanks to Schaudinn it would now seem that we have a scientific explanation. The sexual forms in estivo-autumnal fever do not develop for about ten days after the first paroxysm. In case we are giving quinin prophylactically we do not recognize the first attack and as time goes by the gametes develop. These being resistant to quinin, as shown by the experiments of Gualdi and Martirano, are not extirpated. Later on, the microgametocytes die out, leaving only the macrogametes. These by a parthenogenetic reproduction give rise to another non-sexual cycle and we have a relapse.

PSYCHIC TREATMENT OF SPIRIT AND DRUG NEUROSES.*

T. D. CROTHERS, M.D.

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HARTFORD, CONN.

Two marked changes are noted in all spirit and drug takers. One of them is physical, and is seen in the changes in the face, eyes, tone of voice, manner of walking and general expression and control. The heart is irritable and deranged in its action. There is muscular feebleness, nutrient disturbances, with insomnia and unusual emotional excitement or depression. The general health, conduct and work, as well as capacity of the person is changed.

A second change or symptom noted is the psychic one. The person is bold, assertive, egotistical or the opposite. His former manner of hopefulness or depression is altered. Where he was frank before, he is now secretive, untruthful, unreasoning, has little respect for his words and statements, incurs obligations, asserts or denies emphatically matters of no consequence. His general appearance and pride of character is lowered. These symptoms may be unnoticed in the early stages, but later they are prominent. Both the physical and psychic are intimately associated with each other, yet from the very beginning they may be marked differences in the prominence and intensity of either one or the other, indicating the direction of the most active degeneration.

THE PROBLEM TO BE MET.

It is the study of these conditions that suggests lines of treatment that are practical. To the patient and his friends there appears little evidence of mental change. The patient will claim to be strong both in mind and body, and exaggerate some minor symptoms of functional derangements as responsible for his conduct and thought. These views are confirmed by the opinions of his friends and often by the physician. The theory is that it is a mere question of vice and careless yielding to the surroundings. Any symptoms of disease are considered insignificant, requiring little or no treatment. It is the prevalence of these theories that has made the existence of over a hundred quack "homes" possible, with probably a thousand patients under treatment, all based on the assertions that they have discovered specific remedies for the disease.

The fact of using spirits and drugs for their effects any length of time should never be considered insignificant or unimportant. This fact should always create an interest to discover the changes and degenerations both physical and psychic that always follow the use of these drugs. There should be no doubt of the variations, defects and departures from the normal, which can be traced and studied with as much certainty as that of any other defects. Such a study along the following lines will bring out the facts beyond question. First, how far has this condition been due to hereditary defects? What diseases have been common in the family, and what neurotic tendencies have been transmitted directly or indirectly?

Inquiry into the nutrition and surroundings, the growth, culture, traumatisms and diseases of early or later life, will bring out new facts. Nutrition and traumatism are very important factors in a great variety of organic derangements, associated with low vitality, and feeble resisting power, which frequently merge into spirit and drug taking. If this study is carried into the psychic realm, and notes made of the integrity of the senses, emotional control, the influence of surroundings, home life, occupation, training and purpose in life, a new class of facts will be gathered from which to judge the case. It is from this study that the psychic and physical degenerations appear, also the question, which is the most prominent. The physical is always regarded as transient and the psychic, or the question of vice and morals and general weakness, the more prominent.

THE PSYCHIC ELEMENT.

For the cure of the latter, prayers and pledges are offered, and appeals to the moral nature are supposed to stimulate and rouse up some weak will, from which escape by faith and conversion will follow. The element of fear and suffering is kept prominent in the legal methods by fine and imprisonment, and the supposed humiliation and loss of pride which follows is thought to give a certain strength toward possible restoration. In these theories there is no recognition of the exact conditions and, of course, the treatment is destructive and irrational. All patients should be examined with the utmost care to determine every deviation from the normal.

In the treatment the toxic and inflammatory conditions should receive first attention and never be lost sight of in all after remedial efforts. The prominence of either the psychic or physical disturbances will determine which is the more seriously affected. In the psychic study many patients exhibit an egotism that borders on the paretic, with its peculiar delusions and deliriums. The patient claims to have perfect control of himself and ability to abstain from all spirits and drugs at will. He is confident that his weakness depends on the unreasonable efforts of friends to help him, and that his own judgment of his condition and its needs is more accurate, and if carried out would enable him to recover.

With this is another delusion that a moderate use of spirits is an ideal state, which is always possible. Another psychic symptom is that of confusional excitement and intense efforts to explain why spirits and drugs are used. This is often seen in periodic drinkers, who, after the subsidence of the drink paroxysms are greatly excited and intense in their apologies and explanations. Usually this is explained as due to persecution and faults of others, as well as the surroundings. In this there is depression and often contrition with convictions that it will never occur again. The most positive assertions will be made that he will never use spirits or drugs any more, and these statements are often accepted by friends as facts.

A third class of psychic disturbances is a general negative one. The patient is depressed and gives no reason for his conduct, calls it fate and despairs of any change. A common explanation is that he was worried, angry, and did not care what he did, or that he used spirits to spite some one. Oftentimes occupations and surroundings are explained as active causes. In jails and insane asylums they are all recognized as moral defects, which may possibly grow less with an increasing physical vigor. In private hospitals, where their gravity is recognized, they suggest lines of treatment of equal value

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to that of the physical. To treat one and not the other is to fail. To treat them both, giving special reference to that which is most prominent, is the highest practical science of to-day.

THE POWER OF MENTAL IMPRESSIONS.

One of the questions in the psychic treatment is whether the patient should have profound psychic impressions by a sudden or gradual process. If the person is egotistical, with distinct delusions of his strength and capacity, it is wise to use the most impressive means to shock and break up his present range of thought. If with his egotism there is pride of family ties, social connections and ambition to take rank in the world, a sudden mental revolution is desirable.

One of the ways to accomplish this is to make a very impressive examination, particularly with instruments of precision, measuring every possible function and state of the body, and securing pronounced evidence of his perilous condition. This may be assisted by the use of drugs and electric appliances and powerful suggestions in a way that will produce a form of psychic shock on the patient's mind; also a literal hypnotic control which should be followed by the most pronounced means and measures. This control must be increased, and the mind, led by gradual stages into new efforts and new purposes, thus literally trained out of its old reasonings. This is sometimes done by evidence that impresses the senses as much as the mind. If the patient is a business man the questions of values and losses can be made prominent. If an educated professional man, facts and their meanings and the laws which control them will increase such impressions. The second method is to approach the psychic by gradual changes and seek to turn the mind into other channels and into other ranges of thought.

APPLICATIONS.

Practical illustrations are as follows: A lawyer who had a highly developed sense of color was led to take up the study of plants and flowers, with the possibilities of changing the combination of colors. In this way his mind was led into a new range of mentality, resulting in a perfect recovery and the development of a new mental control power which followed him through life. In another instance a mechanic developed a most intense passion for the study of French. This was a new road out of the past and this psychic impulse dominated all his after life. In another instance a lawyer was encouraged to take up the study of heredity, and this became a hypnotic force controlling his future. It is often possible to discover latent ambitions and tendencies of the psychic life which have been suppressed; it is the gradual development of these that becomes a powerful medicinal measure.

Religious faith is another psychic influence which, when founded on reason, is very helpful. Often it is so complicated with emotional states and excitement that it is transient. The mind and senses of spirit and drug takers are not often receptive to psychic facts concerning the future life. Such facts may secure a momentary impression, but unless sustained by continuous appeals and increasing organic vigor are usually transient. The higher consciousness of right and wrong and power of appreciating ethical truth is depressed and enfeebled. While the patient is credulous, it is along lower levels and toward physical ideals. One central fact should be the controlling power, namely, to train and develop the mind and body out of the present condition and toward an ideal of new vigor and strength. This combination is most perfectly secured in small hospitals and homes where the patient can be seen and studied and every condition of surrounding regulated.

The power of contagion in which one person dominates another, forcing his conclusions on him, often to his injury, can be controlled in small hospitals. The paretic egotist who defends the use of spirits and urges other extreme theories, which are accepted as truths by weaker minds, is a psychic degenerate that is positively dangerous to others. Such persons in the community are infectious and need psychical treatment. In hospitals they should be isolated and made subjects of profound impressions.

OCCUPATIONS—MENTAL AND PHYSICAL.

The depressive confusional conditions of many spirit neurotics are often treated successfully by physical and mental occupation, applied up to the point of fatigue. In one instance a number of persons under treatment were sent daily a long distance to take the temperature of the water of a lake and compare it with that of the water in a cave. In another a patient was sent to a library to find some historic records. Both of these persons made good recoveries, largely depending on the psychic treatment of the mind. In a small institution this personal treatment can be concentrated in stimulating and dominating the psychic impulses. Physical culture can be developed here to a high degree, and the various morbid impulses can be suppressed and overcome by the development of other combating forces. The theory of the subliminal, or the inner consciousness, to obtain mastery over the degenerative functional impulses, is most suggestive, and the application of it seems to be unlimited.

It is clear that physical training and the removal of the toxic causes and the improvement of nutrition opens a larger scope for the test of this theory, which is practically the influence of mind over matter. We are all aware of the potent power of this psychic force, seen in every great cult that is growing in this country. Why can not this power be concentrated in our private work in small hospitals and made to accomplish results in overcoming disease? Already we are face to face with the fact that what is termed suggestion, skilfully applied and persistently pressed along rational lines, is a medicinal power of tremendous possibilities. We are already aware that the great armies of spirit and drug neurotics in every section of the country should be halted, restored and saved from the jail and almshouse. With a wise application of psychic and physical remedies this can be done.

The evidence is accumulating, and almost every physician can refer to instances of restoration ascribed to means that are utterly inadequate. When examined scientifically it is the psychic realm and its mysterious laws which has produced this result, and we stand about unconscious and ignorant of its mighty presence. The toxic neurotic with his damaged pain centers and faulty resisting powers, low vitality, requires something more than physical treatment. He needs psychic remedies to turn his feeble mentality into new lines of thought. New forces must be brought into activity and new measures must be used. The small hospital and the family physician are the pioneers to develop and make practical this realm of practice now unoccupied at our door.

PATHOLOGIC RESULTS OF OPERATIONS ON THE TURBINATES.*

FRANCIS R. PACKARD, M.D.
PHILADELPHIA.

When one considers the extreme vulnerability of the nasal mucosa, the extent to which its surface is exposed to infection both by the agency of the inspired air and by its situation, it may well occasion surprise that the cases of unfortunate sequelæ following operative procedures on the turbinates is so small. This is especially so when one considers, too, the enormous number of operative procedures of various sorts which are performed within the nasal cavity. Lermoyez[1] classifies the accidents which may follow intranasal operations as follows: 1, of infectious origin; 2, of nervous origin; 3, of mechanical origin, and this is probably as satisfactory a classification as can be made.

The most serious accidents which follow operations on the turbinates would, of course, come under the head of the infections. Septic conditions following turbinal operations are by no means as common as one would expect. When we consider the large blood and lymphatic channels which lie immediately beneath the nasal mucosa and the proximity of the tissues to the brain and its meninges, we would hardly think that cases of meningitis, cerebral abscess or thrombosis of the sinuses are as rare as they would seem to be after a diligent search of the literature on the subject. Of course, an obvious fact to be borne in mind when looking for records of cases of this character is that such cases are seldom reported, the surgeons in whose practices they occur preferring, very naturally, not to publish their mistakes to a censorious world.

One of those to report cases of septic infection following intranasal operations was Voltolini,[2] who, in an article on nasal polypus, reported two cases. One of the patients was a man who died of meningitis following the removal of nasal polypi. This patient took a long journey on the day following the operation. The second died of pyemia following the removal of nasal polypi.

J. Broeckaert[3] reports the case of a child 5 years of age from whose nose he removed polypi with a hot electric wire snare. The patient developed suppurative lepto-meningitis and death ensued.

L. Rethi[4] reports the case of a man, 62 years of age, who died following the removal of multiple polypi. The postmortem diagnosis was general meningitis with sinus thrombosis and pyosepticemia.

Jürgens[5] reports a case in which he removed the middle turbinate from a man, 55 years of age, who died shortly afterward from an abscess in the orbit.

An interesting case was reported by Galliard,[6] in which the application of perchlorid of iron for epistaxis was followed by the death of the patient, who was a young man. The autopsy showed gangrenous inflammation of the nasal mucous membrane with a meningitis chiefly in the region of the olfactory nerve.

H. Knapp[7] reports a case of operation by external incision with the removal of nasal polypi and an orbital tumor. The woman, aged 47 years, died four days after the operation from purulent leptomeningitis.

F. J. Quinlan[8] reports the case of a girl of 18 in whom he cauterized the middle turbinate with a galvanocautery. Seventy hours after the operation she died of meningitis. This patient had had several intranasal operations with saw and bone forceps performed some months before.

C. H. Knight and James F. McKernon[9] reported the case of a woman, 25 years old, in whom the removal of a cystic expansion of the anterior extremity of the right middle turbinate by the cold wire snare and nasal cutting forceps, was followed by acute otitis media and mastoiditis of the same side. The aural condition required first paracentesis, followed by mastoidectomy and subsequently the ligation and incision of the internal jugular vein. In spite of the great degree of sepsis the patient ultimately made a good recovery.

C. R. Holmes[10] reports the case of a young man who, after a turbinectomy, made a business trip in inclement weather. The nasal wound and ethmoid cells became infected and he had repeated attacks of epistaxis. Two months later his vision became blurred, and Dr. Hotz, who saw him, stated that there had been an extensive optic neuritis, complicated thrombosis of the lower veins and hemorrhage in the macular region. Dr. Holmes also saw a case which occurred in the practice of the late Dr. Max Thorner. The patient was a young man, 17 years of age, from whom Dr. Thorner removed a nasal polypus and subsequently cauterized the base of the polypus. Forty-eight hours later the patient had an extensive hemorrhage in the macular region with thrombosis of the ophthalmic vein, which ultimately resulted in optic atrophy and amblyopia.

Of the nervous affections which may follow operations on the middle turbinate there are some which are most curious. My attention was first forcibly directed to nasal reflex phenomena by an occurrence in my private practice which caused me considerable worry, although it was not serious in its ultimate outcome. I have already reported the case.[11]

Patient.—A man, aged 37, of muscular build, and without neuropathic taint, came under my care for a hypertrophic rhinitis of severe grade.

History.—He had been treated by several specialists in diseases of the nose and throat and had undergone many minor nasal operations during the immediately preceding few years. The hypertrophic tissue had been treated with the galvanocautery, chemical caustics and by removal with the cold wire snare. During February, 1897, I used the cold wire snare to remove a small piece of hypertrophied tissue from the anterior extremity of the middle turbinate bone of the left side. Two days later the patient returned and informed me that on the day following the operation he had, while writing, suddenly become blind in his left eye. He had gone at once to the office of a well-known oculist, and while waiting in his ante-rooom to see him found that his vision was beginning to return. Before the doctor had finished his examination sight was almost completely restored to the eye. The period of complete left-sided blindness was stated by the patient to have lasted between twenty and thirty minutes. The oculist has since informed me that careful examination had failed to reveal any cause for this condition. When I saw the patient after the occurrence, the site of the operation presented a perfectly normal appearance. I subsequently

*Presented in the Section on Laryngology and Otology of the American Medical Association at the Fifty-eighth Annual Session, held at Atlantic City, June, 1907.

1. Ann. de Mal. d. l'Oreille et du Larynx, etc., 1891, xvii, 85.
2. Die Krankheiten der Nase, 1888.
3. Ann. de Mal. d. l'Oreille et du Larynx, etc., December, 1894.
4. Sajous Annual, 1896, iv.
5. Wien. med. Wochschr., 1899, xlix, 66-68.
6. Bull. Soc. g. Anat. de Paris, 1880, lv, 438.
7. Arch. of Otology, 1884, xxxiii 51.
8. N. Y. Med. Record, 1890, xxxiii, 292.
9. Tr. American Laryng. Assn., 1905.
10. Ohio State Med. Jour., February, 1906.
11. Med. News, Oct. 9, 1887.

used the cold wire snare in the further treatment of the case and also employed chromic acid, with no results out of the ordinary. Of course the transient blindness can only be considered as a reflex amaurosis, the result of the intranasal operation.

In connection with the report of this case, I reviewed in my article the literature of the subject, and in doing so called attention to the many curious phenomena that have manifested themselves after operations within the nasal cavities.

In 1885 Ziem[12] wrote a lengthy article on evil results of reflex origin following intranasal operations, in which he reported a number of cases of visual disturbances under such circumstances and also several of delirium.

Dr. Thorner[13] reported a case almost identical with that reported by me of reflex amaurosis. Although it resembled in some respects the case which Dr. Holmes saw with Dr. Thorner, which I have already referred to, it differs so essentially in its nature that I think it must have been a distinct case. The patient, following the cauterization of a small polypus in the middle meatus of the nose, suffered from a temporary amaurosis of the same side. He could distinguish between light and dark, could see objects held closely before the eye, but could not count the fingers at five feet. His vision was gradually restored in four or five weeks. In the same article Chappell is quoted as reporting two other cases, one a boy aged 16 years in whom the removal of a piece of the middle turbinate the size of a pea was followed four hours later by total loss of memory. The boy's family physician reported in Thorner's case that the boy's temperature was elevated, his conjunctivæ hyperemic and his pupils dilated. He complained of headache and was absolutely unconscious of everything that had happened since he left home to go to Dr. Thorner's office. There was absolute loss of memory for six weeks, after which the memory gradually returned until it was completely restored, three months after the operation. The other case was that of a woman, aged 24, who had a severe subacute cough accompanied by neuralgia of the left side of the face following the removal of the anterior portion of the left middle turbinate.

W. F. Chappell[14] reports the case of a woman, aged 58, in whom he injected one drop of monochloracetic acid into the mucous membrane of the right middle turbinate. The same evening the patient was attacked with severe pain in the right side of her face, extending over the top of the head to the occiput; she also had pain down the right side of her neck and along the course of the nerves to the tips of her fingers. The pain was neuralgic in character and began to subside after one week, but six weeks had elapsed before she was restored to her normal condition.

Another patient of Chappell's, after the removal of a portion of the left middle turbinate, had a good deal of hemorrhage, but only slight pain. Two hours after operation she began to suffer with pain and tenderness over the left frontal region, extending to the occiput and down the back of the neck to the left shoulder. She felt dizzy and at times feared that she would fall. Three months after the operation, although much better, she still had some numbness of the left side of the face and neck. Dr. Chappell also refers to another case in which a portion of the left middle turbinate was removed with forceps and the galvanocautery was used on the left inferior turbinate. Following the operation the patient vomited and complained of pain in the back of the neck. A month later the galvano-cautery and chromic acid were used to cauterize the right inferior and middle turbinates. Shortly after this last procedure the patient complained of pain in the head and aching of the neck and shoulders. Another cauterization was followed by similar symptoms, in addition to which she had pain in all the large joints of her body. The following day she had great pain over the bridge of the nose, vertex and back of the neck and suffered from aphasia. A few days later she fell into a cataleptic state, pupils contracted, respirations shallow, and heart action normal. This condition continued for about an hour and recurred daily for ten days. The patient, at the time Dr. Chappell reported the case, was still far from well.

One can not help thinking that in this case there must have been a large hysterical element, as her complaints of pain did not always seem to have been backed up by the physical lesions which would have caused it.

Sir Felix Semon[15] reports a case in which the removal with a galvanocautery loop of multiple recurrent mucous polypi of the nose was followed by sudden exophthalmos of the right eye, accompanied by Graefe's sign (lagging behind of upper lid when patient looks down) and Stellwag's symptom (retraction of the upper eyelid). There was no enlargement of the thyroid gland.

12. Monatschr. f. Augenheilk., Berlin, 1895, xix, 257.
13. THE JOURNAL A. M. A., Sept. 26, 1896.
14. N. Y. Med. Record, May 10, 1890.
15. British Med. Jour., April 20, 1889.

Clinical Notes

COMBINATION CATHETER AND SOUND.

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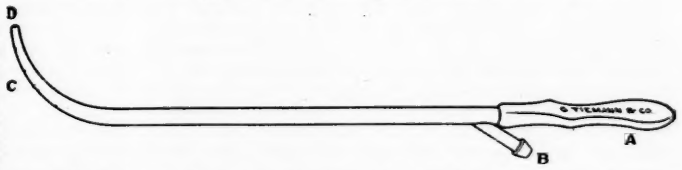
I have had made a combination catheter and sound. So far as I know there is no other instrument of exactly this type. The advantages claimed are as follows:



Combination catheter and sound: A, head of sound, solid, (steel); B, outlet for escape of urine, or point of attachment of fountain syringe to wash out the bladder; C, small perforations communicating with central canal; D, perforation at point.

1. When a metallic instrument is to be used, this is more readily introduced than a silver catheter, as the weight of a solid, or almost solid, sound, after reaching the deep urethra, readily carries the instrument into the bladder — at least when raised perpendicular — unless there be serious mechanical obstruction to the introduction of any instrument.

2. This instrument not only dilates the urinary canal, but its entrance into the bladder will be made known by the slow discharge of the urine. I say slow, because the canal or channel in this instrument is purposely made small in order to preserve the weight of the sound.

3. If this instrument meets with serious obstruction, a little warm sterile oil or glycerin may be injected

through this canal with a small hand syringe, thus facilitating its introduction.

I was led to feel the need of such an instrument by having to attend a man over 70 years old, who, after months of catheter life from enlarged prostate, was operated on by Dr. J. B. Murphy. After some months the patient again had trouble in fully evacuating the bladder. Dr. Murphy advised me to introduce a sound once a week, or two weeks as required. This maintained the patency of the canal, but did not drain off the residual urine. This necessitated the use of a catheter afterward. The sound would frequently pass into the bladder when neither a soft nor metallic catheter would do so, unless the sound preceded it.

The bladder can also be readily washed out by attaching a fountain syringe to the hollow projecting point B in the engraving.

MARKED MALPOSITION OF THE SIGMOID SINUS.

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BALTIMORE.

On March 16 of the present year I was called on to open the mastoid of Fulton M., aged 5, who had suffered from acute suppurative otitis media for two weeks. There was decided swelling of the skin over the bone. After making the usual incision through the skin, a small fistula was found in the mastoid fossa which passed down through the cortex. After removing the bone, granulation tissue was encountered, but the peculiar doughy sensation imparted to the probe warned against the use of the curette. The soft tissue was carefully uncovered from the mastoid fossa to the tip, and everywhere presented the same granular appearance. Its position was directly back of the posterior wall of the canal. There was no pulsation of the mass. In trying to make a positive diagnosis a portion of the canal wall was removed and even then it was impossible to tell whether I was dealing with granulation tissue alone or with the sinus covered by it.

At one point the granulations were accidentally scraped off and a bluish shimmer convinced me that I was dealing with the sinus. To make assurance doubly sure a sterile, hypodermic needle was pushed through the blue spot and the withdrawal of dark blood made the diagnosis positive. The position of the sinus was directly back of the posterior wall of the canal, hugging it as closely as possible, and extending from the mastoid fossa just below the dura above to the uncovered tip below. Its direction was perfectly straight instead of the usual S shape. The position of the vessel changed an apparently simple operation into a complicated one. Since there was no evidence of thrombosis, the granulation tissue was not disturbed. The skin wound was sutured a short distance above and left open below.

The patient made an uneventful recovery. I had never seen such a marked displacement of the sinus.

919 North Charles Street.

TETANUS TREATED WITH MAGNESIUM SULPHATE BY HYPODERMOCLYSIS.

MORTON LYON, M.D.
DE WITT, IOWA.

I wish to report a case of tetanus treated with magnesium sulphate by hypodermoclysis, with recovery:

The patient, J. K., male, 7 years old, stepped on a nail, which punctured the sole of his shoe and entered the left foot, barely through the skin, making a wound scarcely noticeable.

Eight days later he complained of stiffness in his foot and leg. On the ninth day a spasm of the leg caused him to fall, and rigidity of muscles was increased. On the tenth day trismus was noticed and there were occasional convulsions. On the eleventh day I was called to see him and found his jaws set and almost all his muscles rigid. He could move his arms and hands to a limited extent. The wound was laid open and thoroughly treated with hydrogen dioxid and tincture of iodin.

The convulsions were partially controlled by morphin, chloral and bromids. On the twelfth day, at 3 p. m., I gave two drams magnesium sulphate in four ounces of distilled water under the skin of abdomen. At the end of two hours the boy could separate teeth 2 cm., and his other muscles were relaxed to a marked degree. On the thirteenth, fourteenth, seventeenth and nineteenth days the magnesium sulphate injection was repeated, and, although the muscles were not relaxed to the same extent as after the first injection, the convulsions were infrequent and not so severe. Only twice was there any bronchorrhea, and then of slight consequence. About the fourteenth day a vesicular eruption appeared all over his body. The vesicles were of pin-head size and filled with a clear fluid. These dried up and disappeared with an exfoliation of epidermis in about one week.

From the last injection of magnesium sulphate on the nineteenth day the stiffness in muscles slowly disappeared, the last to disappear being in the foot which was injured. It was necessary to give digitalis to improve heart action after the first week of illness, and tonics for anemia during convalescence. About the thirtieth day he was able to sit up, and in ten days more to walk again as usual.

CASE OF MULTIPLE SACCULATED THORACIC ANEURISM SUCCESSFULLY TREATED BY WIRING.

JAMES M. ANDERS, M.D., LL.D.
AND
JAMES P. MANN, M.S., M.D.
PHILADELPHIA.

Patient.—M. W., a colored man, aged 36 years, was admitted to the Medico-Chirurgical Hospital, Jan. 18, 1907, complaining of a painful, throbbing lump in the sternal region, a troublesome cough, marked dyspnea, and general weakness.

History.—The family history was negative. The patient as a child had measles and mumps. When about ten years of age he fell and sustained an injury to the chest, to which accident he attributed his present condition, though the first local symptoms appeared twenty years later. He had always been more or less subject to colds and had suffered from several slight attacks of acute rheumatism. For the past twelve years he had been a barber and had previously been employed for a number of years on a farm. He had used tea and coffee in moderation, but tobacco, beer and whisky freely until entering the hospital. He had been married eight years. The patient admitted a specific infection, the primary lesion appearing, however, only four months previous to the time of his admission.

The present illness began about four years ago, when he noticed a dull boring pain under the sternum. Soon, a small, painful, throbbing protuberance appeared to the right of the mid-sternal region, but this swelling largely disappeared under absolute rest and medicinal measures. During the four years intervening between that date and his admission to the hospital, he had an occasional pain in the same region, and a cough at intervals, which, however, was not characteristic of thoracic aneurism.

Since Christmas, 1906, he had a severe cough, which caused considerable pain in the area of the original swelling. On January 14, four days prior to date of admission, he indulged in a "spree," during which he suddenly felt a sharp pain accompanied by a sense of "something giving way" in the chest. This was attended with a smothering sensation, and at the same time he noticed a return of the swelling. The tumor now rapidly enlarged and four days later it was about the size of a small orange. Neither dysphagia nod aphonia was present.

Examination.—On admission to the hospital, the most striking feature of the physical examination was a conical tumor-

mass, projecting from the thorax at the right edge of the middle of the sternum. This was about 2½ inches in height and 3 inches in diameter at the base. The apex showed a subcutaneous hemorrhage which rapidly increased in extent until it was the size of a silver half-dollar. The extreme summit of this area was of a deep reddish color and presented a glazed appearance. An expansile pulsation was both visible and palpable, extending for a considerable distance beyond the base of the mass. There was an absence of thrill, tracheal tugging and episternal pulsation. A systolic murmur or bruit was heard at the second aortic interspace during inspiration only. This was transmitted into the vessels of the neck, but was not audible over the elevation. The heart was apparently neither enlarged nor displaced. The heart sounds at the apex were somewhat rapid and rather weak; the second aortic sound, however, was moderately accentuated. The lungs were normal, except for a slight congestion of the lower portion of the left lung.

The pupils were equal and reacted to light, accommodation and convergence.

Estimation of the blood pressure in both radials showed the right to be: Systolic, 130 mm. Hg; left, 125 mm. Hg. Later the difference was more marked, viz.: Right, 120 mm.; left, 100 mm.

An *x*-ray examination, made by Dr. Pfahler immediately after the patient entered the hospital showed an aneurism extending 3½ inches to the right of the median line on a level with the third rib and also approximately 2½ inches upward and downward from this level. The upper portion of the aneurismal shadow just overlapped the origin of the aorta.

The blood showed a slight grade of secondary anemia; the coagulation-time was 3½ minutes; later (June 7) this was reduced to 2 minutes.

Treatment.—A modification of Tufnell's diet was used. Breakfast, a soft boiled egg and two ounces of bread; dinner, three ounces of meat and two ounces of toasted bread; supper, milk toast. Between meals he was allowed four ounces of milk every three hours, but no other fluid. Later a small quantity of stewed fruit was added to the diet.

The medicinal treatment consisted chiefly in the use of tincture of aconite m. iii, every three hours, gradually reduced to m. ii three times a day, and a saturated solution of potassium iodid m. v twice daily, increased m. i daily, until the dose became m. 1, three times a day, when the patient developed symptoms of iodism; it was now reduced to m. xxx, which amount was maintained during his entire stay in the hospital.

Codein sulphate gr. ⅛ was administered by mouth when necessary to control the troublesome cough. He was also given magnesium sulphate in doses sufficient to keep the bowel movements in a fluid state.

The patient's condition did not improve and the aneurism was in imminent danger of rupture. On January 29, therefore, it was decided after consultation to resort to more radical measures. Accordingly, one of us (Dr. Mann) inserted into the aneurismal sac about ten yards of fine silver and copper wire. Almost immediately the expansile pulsation was markedly diminished and the tumor-mass was less prominent. The wire could be distinctly felt, giving the impression of subcutaneous emphysema. About two weeks later, an additional slight elevation above the second rib, and to the right of the sternum, was visible. This also gave an expansile pulsation.

The second eminence slowly increased in size and on February 13 Dr. Mann inserted several yards of fine silver wire. At this time the pulsation in the original mass was not apparent. In a few days the pulsations in the second elevation were less marked and a considerable diminution in its size was noticed. On February 28 the entire upper surface of the primary tumor-mass sloughed off, exposing the wire coiled up within the aneurismal sac. Beneath the wire, which admirably fulfilled the purpose for which it was intended, a firm granulating surface was visible.

As the result of the formation of this granulation tissue and the progressive retraction of the sac, the wire was steadily protruded from the wound and small portions were removed each day until little remained. The coils of wire which had been passed through the sternal opening, however, were not removed. For a long time after the mass had disappeared, there was a slight oozing of blood from the wound. A small hemorrhage occurred June 16, about two ounces of blood being lost.

On July 1 the patient first sat up. The wound now slowly healed by granulation. A slight pulsation over the second elevation was still present. The patient's strength gradually returned and on July 17, the wound meanwhile having healed, he was discharged from the hospital.

SUPPLEMENTAL RFPORT BY DR. MANN.

The aneurism was first wired Jan. 29, 1907, at which time and continuously thereafter, careful precautions to insure asepsis were maintained. With a hollow needle of sufficient caliber to admit freely the passage of No. 26 silver wire, the tumor was punctured near the base of the portion external to the sternum.

About thirty feet of wire was passed through the needle, which was directed toward different areas of the sac in order to distribute the coils better and also to block the opening in the sternum. The sternal aperture, as discovered by a radiograph, had a diameter of about three-fourths of an inch and was located in the lower half of the gladiolus. Pulsation almost entirely subsided soon after the wire had been introduced.

About two weeks subsequent to the first wiring, that is on Feb. 13, 1907, a small area of pulsation appeared in front of the sternum just above the original tumor. This second sac was filled with seven feet of wire, after which and up to Jan. 15, 1908, there has been only feeble pulsation and no extension of the parts wired.

Results.—The patient has been seen at intervals of one to two months since he left the institution, and has continued symptom-free with the exception of slight dyspnea on active physical exertion. Certain physical signs of the aneurism are, however, still present, namely, very slight bulging over site of upper elevation, feeble pulsation (slightly expansile) over same area, and a small abnormal field of dulness above and to the right of the normal cardiac dulness and slight accentuation of the second aortic sound. No bruit can be detected, however, a small, shallow dark red protuberance covering an area about the size of an ordinary coat button appeared about Feb. 6, 1908. This small projecting mass exhibited an expansile pulsation. An *x*-ray examination made this day showed no perceptible increase in the size of the saccular aneurisms situated to the right of the sternum when compared with the results obtained by the same method six months previously. The aneurismal dilatation of the transverse portion of the arch, however, had extended itself to a slight extent, although it had given rise neither to symptoms nor to physical signs.

By March 10, 1908, the small protuberance, which appeared on February 6, 1908, had entirely disappeared as the result of rest.

A PRECAUTION TO BE OBSERVED IN MAKING THE USUAL GMELIN TEST FOR BILE IN THE URINE.*

WALTER H. BUHLIG, B.S., M.D.
CHICAGO.

In the performance of the usual Gmelin test for bile in the urine the nitrous acid necessary for the oxidation of the biliverdin is obtained in various ways. It has been our custom—and this method has been used elsewhere—to instruct the student to heat concentrated nitric acid with a few pieces of the wood of matches,

* From the Clinical Laboratory of the Northwestern University Medical School.

and to heat until the fumes of the nitrogen oxids arise faintly, in this way furnishing the mixture of nitric and nitrous acids. The acid is then poured into another clean, dry test tube and, after superimposing the urine on the slightly yellow nitric acid, the usual play of colors is looked for.

An error in interpretation, not of the presence of bile, but of the presence of albumin, in the urine is remotely possible after this manipulation. In practically every test made in this way a distinct white ring can be seen between the urine and the acid in nonalbuminous urines after the lapse of less than a minute, often at once. This ring, which is practically always just below or associated with the normal brown ring, is sometimes so dense and sharp that under some conditions, remembering the usual Heller's test for albumin, a faulty conclusion respecting the albumin content of a urine may be made. Heating the acid alone to boiling will never give the same result, and the white ring in question is probably precipitated resin dissolved from the wood by the nitric acid. This resin can not be removed by ordinary means. Benzin will not remove it completely, or will give a cloud at the juncture of the urine and the acid after its removal from the benzin. Alcohol is impracticable, for it mixes with the acid. Consequently, the ring will be present after making nitrous acid in this way and it becomes necessary to heed the warning.

The same care in diagnosis in this test, relative to the presence of albumin, must be taken as in the interpretation of the presence of albumin in urines containing resins, from copaiba, etc., when making the Heller's test for albumin. In the latter instance the white ring is usually high, that is, above the junction line of the nitric acid and the urine, for it comes from the urine. The position of the ring in the test for bile by yellow nitric acid made as described above is low, the resin being precipitated from the acid, and this location of the ring is of importance in putting one on one's guard.

When one remembers how hastily some clinical tests of urine are made, this precaution, I believe, is of practical importance. One always hesitates to announce such a simple error as this, but in none of the usual text-books on clinical diagnosis has any mention of it been found. Other methods of producing the nitrous and nitric acid mixture may be used, as, for instance, by heating nitric acid with starch, by adding a nitrite to the acid, or by exposing the acid for a long time to the air, but none of these is so easy of application or so rapid of execution as the one by the use of the wood of matches.

CASE OF ACUTE MASTOIDITIS WITH SOME UNUSUAL FEATURES.*

ALFRED WIENER, M.D.

NEW YORK.

The interesting and uncommon features present in this case I believe warrant its recital.

Patient.—Mrs. S., 65 years of age; a widow; domestic by occupation; was admitted to the hospital Nov. 30, 1907.

History.—Patient's family history is negative. Three years ago she suffered from an attack of pneumonia, followed by an acute purulent otitis media in the right ear, from which she eventually completely recovered. Nov. 3, 1907, she was confined to bed with an attack of influenza, and almost immediately an acute otitis media made itself apparent in the left ear. The tympanic membrane ruptured of its own accord, and soon a purulent discharge was noticed. At first there was little pain, but gradually the pain became more severe in character and extended over the region of the mastoid process. This condition was allowed to go on for two weeks, when the pain, temperature and deafness made the patient so miserable that she finally sought relief, and was at once admitted to the hospital.

Examination.—Patient appeared well nourished and rather corpulent. She seemed to be a very sick woman. The lungs showed a mild degree of emphysema. The heart was hypertrophic and the second sound was very much accentuated. The urine showed granular casts and the presence of albumin. The specific gravity was 1.018. Abdomen, extremities and reflexes were normal. The cranial nerves were perfect. The eyes responded to light and accommodation. There was no nystagmus. The fundus of both eyes showed nothing abnormal.

Ears: The tympanic membrane of the right ear was slightly retracted. The hearing function was normal for ordinary purposes. In the left ear only loud conversation was heard close to the ear. Whisper could not be heard at all. Weber was lateralized toward the left ear. Rinné was negative. Bone conduction was good. High-note tuning forks were appreciated somewhat better than the lower notes. There was a mild degree of edema over the mastoid process. The whole region was extremely sensitive to pressure, especially at the tip and posterior border. The canal was very much narrowed by the sagging of the upper wall. There was some secretion in the canal. The perforation in the tympanic membrane could not be seen. The drum was reddened and bulging and its anatomic landmarks were no longer recognizable. The patient complained bitterly of pain both in the ear and back of the ear, and of some headache. The temperature on admission was 101 F. There was no history of a chill, sweating, nausea, vomiting or vertigo.

Examination of the secretion showed pneumococci. Examination of the blood showed 18,000 leucocytes and 80 per cent. of these were polynuclears. Operation was advised at once and accepted.

Operation.—Division of the soft parts showed nothing unusual. On chiseling the mastoid, immediate entrance was made into a cavity filled with pus, broken down cells and granulation tissue. Although the opening was made close to the suprameatal region, I came down directly on the lateral sinus, which in this patient unfortunately was lying far forward, within three-eighths of an inch from the posterior wall of the external meatus. By working slowly and carefully I was able to preserve the posterior wall and enter the antrum. The whole mastoid process was cleaned out and the tip resected. As the sinus appeared healthy and distinct pulsation was noticed, it was not interfered with. The wound was packed, a dressing and bandage applied, and the patient was put to bed. For the next forty-eight hours the result of the operation appeared to be entirely satisfactory.

On the evening of the third day after the operation the patient passed a restless night and complained of headache and pain over the left side of the head. The temperature rose to 102.2 F. and the pulse rate was 70. Physical examination proved negative. An examination of the fundus in both eyes showed a slight blurring of the discs. The patient was given calomel. For the next forty-eight hours she appeared to be improving, her temperature not going above 100 degrees. Suddenly, on the morning of the sixth day, the patient began to complain of severe headache, the temperature gradually rose to 105 F. and the pulse dropped to 60. There was neither chill nor vomiting. A blood count showed 15,000 leucocytes, with 76 per cent. of polynuclears. Physical examination proved negative. The fundus in both eyes showed a marked choked disc. The mentality of the patient was good, and there was not the slightest sign of delirium. She complained bitterly of her headache. A serous meningitis was at once suspected, the reasons for this suspicion being the intense headache without other cranial symptoms, the choked disc, the rather slow pulse, with a temperature of 105 F. It was

* Reported at the Otological Section, New York Academy of Medicine, February, 1908.

decided to make a lumbar puncture, and also to remove the dressings and seek for the cause of the meningitis.

The lumbar puncture at once substantiated the diagnosis of serous meningitis. The fluid was drawn under high pressure, was perfectly clear, and proved negative on microscopic examination. No lymphocytes; coagulability was good, and there was an absence of all formed elements or bacteria.

The question now arose as to what was producing the serous meningitis. Examination of the wound revealed the sinus covered with a layer of lymph, but soft and pulsating. In the region of the antrum there was a large pocket of pus, in regard to the origin of which there was some doubt. This pocket was cleaned and a fistula sought for in the roof of the antrum, but none could be detected. With the exception of an otitis pyemia pure and simple, due to an absorption of toxic matter, as the cause for a high temperature, an extradural abscess or a probable lateral sinus thrombosis of the parietal type, had to be borne in mind. As there was no positive evidence of the latter two suspicions, the wound was packed lightly to afford good drainage from the region of the antrum. It was decided to wait twenty-four hours and watch the effect of the lumbar puncture and the thorough cleansing of the wound. On the following day the temperature dropped to 99 F. and the patient appeared to be very comfortable. For the following three days the temperature remained below 101 F. and the pulse between 68 and 78. The slight pressure symptoms, such as the headache, which appeared to recur toward evening, were relieved by lumbar puncture. Thirty c.c. were withdrawn each time and proved negative to microscopic examination.

On the evening of the third day the patient began to feel very uncomfortable. Her headache again became excruciating. It was located over the occipital region on the left side, and the entire frontal region on both sides. The temperature rose to 105 F. and the pulse dropped to 60. The fundus examination showed discs measuring nearly 1½ mm. in depth. There was neither chill nor vomiting. A blood count showed 22,000 leucocytes and 84 per cent. of polynuclears. Blood culture proved negative. The extreme pain over the occiput, the high temperature with the slow pulse, the absence of all cranial symptoms, with the exception of the headache and choked discs, together with the previous history and observations, led me to conclude that serious complications were present. The pain and pyemic temperature might be explained as being due to a sinus thrombosis, while the marked pressure symptoms pointed to a brain abscess.

The patient was again anesthetized, and the roof of the antrum and tympanic cavity were made more accessible. As I removed the roof of the antrum I at once came on an extradural abscess. The greater part of the roof was removed until I was able to evacuate this abscess thoroughly. The dura was explored, but no fistula was apparent. The sinus was the next point for observation. The walls were found to be discolored and of a greenish hue, and easily remained indented after pressure made by the finger. There was, therefore, no doubt about the presence of a thrombus within the sinus. I first exposed the sinus toward the torcular for about 1¾ inches until the wall appeared normal. It was then slit open, and a broken-down thrombus removed, and free bleeding obtained. Before attacking the central end I proceeded to tie the jugular. At first the jugular could not be found, but finally it was found entirely collapsed, and about the size of a very small quill. It was tied off and resected for about an inch, and the upper portion brought out at the upper edge of the wound. This was done for the purpose of further observation.

I now went back to the mastoid wound, and found it necessary to lay bare the entire sinus and the bulb. The whole anterior wall was resected, and the thrombus was cleaned out, inclusive of that within the bulb. No free bleeding was obtained. Although the thrombus in the bulb looked healthy, I was unwilling to leave such a mass in a location where infection is not rare and also treacherous. If the remainder of the thrombus should break down, it could easily be dealt with, as explained above. The patient had now been under the anesthetic for one and three-quarter hours, and was beginning to show signs of exhaustion, and it was not deemed wise to proceed any further. No attempt was made to explore the brain, as no involvement was suspected. Sufficient had been found to account for all the symptoms. The patient was put to bed, treated for the slight shock which had resulted from the operation, and awoke on the following morning with a temperature of 102 F. and a pulse of 88. Her subjective symptoms had been very much improved, and her physical condition was excellent. There was a slight rise to 102.3 F. in the evening, and on the following day the temperature dropped to 100 F., with a pulse varying from 80 to 100. The patient now appeared to be cheerful and feeling the good effects of our operative efforts. During the following ten days she was constantly improving, when suddenly she developed a temperature of 103 F. with slight headache. She also began to cough and to complain of pain in the left side of her chest and in the region of the left kidney. Respiration 24, pulse rate 115. The sputum was of a rusty tinge.

Examination of the mastoid wound and of the wound in the neck showed both progressing favorably. A blood count showed 18,000 leucocytes, with 81 per cent. of polynuclears. Widal was negative. Examination of the chest showed consolidation over the lower lobes on the left side. The twenty-four-hour quantity of urine was diminished to 600 c.c. Microscopic examination showed pus cells, red blood cells, granular, hyaline and epithelial casts. An examination of the fundus of both eyes was extremely interesting. Both discs were markedly swollen. In addition, there was an exudation near the macula region of both eyes, and on the outer side of the right papilla there was an exudation with a small flame-like hemorrhage—a picture very familiar to us in albuminuric retinitis. This attack proved to be a migratory pneumonia with an acute exacerbation of an old chronic nephritis. As the temperature still ranged between 103 and 100 F. after ten days, and there was still some consolidation present in the lower lobe on the left side, with increasing cough and dyspnea, it was thought best to pass a needle into this area for the purpose of determining whether there might not be present an empyema or abscess of the lung. There was a possibility that this pneumonic process might be a metastatic condition resulting from the original infection. The exploration proved negative.

After three days the temperature began to drop of its own accord, and from this time on the patient showed improvement from day to day. The wound closed after three months from the date of her admission into the hospital, and at the present time she is perfectly well and able to resume her duties as a domestic.

Especial attention is called to the fact of the presence of a serous meningitis with its characteristic symptoms of high temperature with a slow pulse, choked disc and severe headache. The high temperature was probably due to the sinus thrombosis, but its association with a slow pulse and choked disc led me to suspect a serous meningitis, which was verified by the lumbar puncture. The sinus thrombosis was probably present at the very first rise of temperature, and although suspected could not be verified. Either it was located at the bulb or, what is more probable, it was of the parietal type and, therefore, could not be diagnosed from general appearances or puncture of the sinus. The reason for not attacking the sinus and bulb at this stage of the condition was, that there was a probability that the pocket of pus in the antrum or an extradural abscess in this location might have been the cause for the serous meningitis.

Another interesting feature in this case is the occurrence of a distinct neuro-retinitis of the albuminuric type, making itself evident in the latter part of the illness. This was at once recognized by its exudative character at the fundus. It was especially prominent in the neighborhood of the macula.

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[For other information see second page following reading matter.]

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THE CAUSE OF MILKSICKNESS OR TREMBLES.

On account of its gradual disappearance, now apparently almost complete, the remarkable disease known as trembles when affecting cattle and other animals, and as milksickness when communicated to human beings, seemed to be on the very point of passing into history as an unsolved problem of western medicine.

Fortunately the discovery of a new focus in the valley of the Pecos River in New Mexico gave to Jordan and Harris the opportunity necessary in order that the disease might be studied by means of modern microbiologic methods. As may be seen from their report in this issue of The Journal,[1] there is every reason to believe that they have succeeded in discovering the actual cause of the disease. The description by Jordan and Harris of the symptoms of the sick animals seen by them and furnishing the materials for their study tallies so exactly with the symptoms of trembles as recorded in the literature that there can be no question as to the identity of the disease in the Pecos Valley with the trembles of pioneer days in Ohio, Indiana, Illinois, Kentucky and Tennessee, described in some of its manifestations so graphically by Daniel Drake: "The animal begins to mope and droop, and to walk slower than its fellows, to falter in its gait. If under these circumstances it should be driven, and attempt to run, the debility and stiffness of its muscles are immediately apparent. It fails rapidly, trembles, pants, and sometimes seems blind, as it runs against obstacles, but this may arise from vertigo; at length it falls down, lies on its side quivering, and is not, perhaps, able to rise for several hours, sometimes never."

The conclusion that the disease in the Pecos Valley is trembles is strengthened greatly by the occurrence in the same locality of cases of disease in man presenting some of the classical symptoms of milksickness, including the well-known sweetish odor of the breath.

The observations of Jordan and Harris on the anatomic changes in animals that have died of trembles are highly interesting. The degenerations in the myocardium, fatty and otherwise, explain the weakness of the animals and the collapse on more violent exercise. The nature of the lesions in the myocardium, the liver and the kidneys furthermore indicates that powerful toxic substances are at work.

From the blood and organs of animals dead with trembles Jordan and Harris isolated in pure cultures a spore-forming bacillus, seen in smears from the organs, which they name *Bacillus lactimorbi*, and with which they have reproduced in animals clinical symptoms and anatomic changes peculiar to the original disease, recovering *B. lactimorbi* in pure cultures from the animals subjected to experimental infection. Consequently it may be said that the requirements established by Koch for the conclusive demonstration that a certain microbe is the cause of a given disease have been fulfilled.

As pointed out by Jordan and Harris, more comprehensive studies based on more abundant material are highly desirable in order to make wholly clear the many obscure and mystifying points in the etiology of milksickness and trembles. For the purpose of securing such material the request is made that E. O. Jordan, University of Chicago, be notified immediately on the appearance of milksickness or trembles in any locality. At the same time, as physicians are urged to bear this request in mind, it also seems well to emphasize the possibility that this disease may be occurring even at the present time to a greater extent than is ordinarily believed. This may be true not only of localities in which the disease was prevalent formerly, but also of places in which it has not been thought to occur. We note that the focus in the Pecos Valley is newly discovered and that the disease may occur in Texas; furthermore, that cases of milksickness have occurred in Illinois and Indiana within the last three or four years and in Tennessee only last year.[2]

PRISONS AND SANITATION.

To most of us, prison life is so strange that we think of those who lead it as belonging almost to a separate world. The felon is separated from his fellow men and affects them little either in a sanitary or in a moral sense. But the jail presents much more intimate relations with the outside world and has often revenged itself for sanitary neglect by spreading disease among all classes of society. Since innocent persons must frequently be confined in jail, at least temporarily, it is incumbent on society to see that they take no harm either morally or physically from such forced detention. These considerations should arouse the interest of medical men in these institutions and make of the highest importance the results of recent investigations covering 290 jails in 37 states and territories, which have been carried on by the American Prison Association with the cooperation of *Charities and the Commons*.

With respect to the physical conditions affecting the health of the inmates, the committee making the investi-

1. Page 1665.

2. McCoy: Bulletin No. 41, Public Health and Marine-Hospital Service, Washington, 1908.

gation has a large mass of information. So far as food is concerned, the facts indicate that the diet, while affording sufficient nutriment, is not well selected, either as regards health or cost. The excess of meat is especially unwise in both relations. The report makes the following pertinent suggestion: "The whole matter should be placed in the hands of a medical commission in each state, with power to fix a standard diet, adapted to the climate, the season, the activity, the age and the sex of the prisoners." The report further says: "The customary mode of serving food is revolting and demoralizing and often dangerous to health."

Clothing, being usually furnished by the prisoner, is not entirely under the control of the authorities, but is largely instrumental in conveying disease and disseminating vermin. While the sanitary superiority of the shower as a method of bathing is admitted, it is rarely installed in jails, but instead, tubs are provided which are easily made dirty and dangerous. The use of the bath tub for laundry purposes, and the opportunity for the spread of vermin afforded by the open structure of the jail are condemned by the report which further says: "The best the visitor dares to write is, 'the bedding is fairly clean, considering the situation; the situation is vile.'"

While the buildings were generally found tolerably clean, no bacteriologic examination was made to learn what sanitary filth might remain after the official sense of sight and smell had been satisfied. The committee suggests that a state central board of supervision should take up this study by employing an agent with fortified eyes. The same may be said regarding ventilation. Scientific scrutiny is needed. The lighting is unsatisfactory from the fact that the tiers are generally so placed that adequate sunlight can not reach them.

Another sanitary need of jails is provision for exercise and occupation. At present the facilities provided are insufficient from the standpoint of bodily health, but this is the least important aspect of the question. The mental health of the prisoners is of the utmost importance, especially in the jails, as a large portion of the inmates of these institutions are only temporarily detained in them, and if the conditions are such as to return these persons to society with impaired mental powers and more inclined to crime than before their incarceration, the community is injured rather than benefited.

It is now recognized that proper occupation is a means of cure in insanity. The effect of forced incarceration, with its necessary interruption of customary employment, the depressing tendency of an accusation of crime, and the pernicious influences of other criminals create a strong tendency to mental disease which should be counteracted in every way possible.

In all respects, therefore, both from the viewpoint of the sanitary interests of society in general, and from that of ordinary humanity, a better sanitary supervision and control of jails is demanded. Some of the needed improvements can be brought about only by a radical change in the spirit and methods of the criminal law, but some of the recommendations of the committee are immediately practicable and should receive the attention of county officers and physicians.

SPORT AND NUTRITION.

Recent investigations into the relation of diet to muscular activity have an important bearing on the nutrition of those called on to make special muscular exertion. Athletes, especially, are of interest in this regard to the physician, for it is often a grave question with him how the most successful results may be attained by them without ultimate injury to health. In these days sport has acquired a firm hold on a large portion of the populace, and there have been evolved traditions regarding the proper diet, derived largely from the experience of English trainers, who have generally advocated a diet containing a large amount of proteids. The recent work of Chittenden and others has brought to our notice, however, facts which seem to render the wisdom of this practice questionable. The success of vegetarians also in certain trials suggests that the importance of proteid nutrition for training purposes has been overrated. German army experiments, moreover, as well as physiologic tests, appear to show that carbohydrates are an important source of muscular energy. The additional force requisite for violent muscular exertion is provided for by an increase in all the elements of the food; in Germany, according to A. Albu, preference is given to the carbohydrates, in America to the fats, and in England to the proteids.

Albu[1] asserts that the question in regulating the diet of athletes is the determination, not so much of the minimum of food and of proteid on which certain muscular tests can be carried out, as of the optimum, i. e., the amount which will give the best results with the minimum of danger to health. It must be remembered that success in athletics demands, as a rule, the achievement of results in a relatively short time; and although in the long run the system may be able to get along better with a minimum of proteids, it is possible that without harm it may advantageously use for a time a relative excess. On the other hand, the experiments of Chittenden and the vegetarians may have been influenced by certain factors that must modify the conclusion drawn by them, that the result was altogether due to the small amount of proteids in the diet. Among these factors Albu reckons the psychic influence of interest in the scientific question involved and devotion to the cause of vegetarianism. He calls attention to the fact that the success of the vegetarians has been greatest in the tests of endurance, and especially in walking, a form of exercise to which they are peculiarly devoted. But in most of these tests the vegetarians have formed

1. Berl. klin. Wchschr., March 23, 1898.

the majority of the contestants, so that it is only natural that they should have borne off most of the prizes. When this majority has not existed the users of meat have also had their share of winners.

Albu concludes that a mixed diet is preferable for those about to engage in athletic exercises. We should hesitate, he thinks, to recommend either a reduction of the proteids to the physiologic minimum, or the adoption of a vegetarian diet. The proportion of nitrogenous to non-nitrogenous food should be as 1 to 5, or better, as 1 to 6. A preference for proteids, however, especially in the form of meat, is not justified; the quantity should rather be reduced. On the whole, it would seem as though there must be both a right and a wrong for each of the contending theories, the determining factor perhaps being the particular manifestation of energy required. No one, we imagine, would prescribe alcohol in the form of brandy as a tonic, or in the form of malt liquor as a stimulant in cardiac collapse.

THE HOSPITAL LABORATORY.

Even within the present generation, hospitals have undergone a marked transformation. At one time, any insanitary building was considered good enough for the work which physicians had to do in them; little or nothing of value to science was there accomplished. Formerly, the poor entertained a prejudice against hospitals as being places in which cruel things were supposed to be done; now, the primary object for which they are built—the humane and skilful treatment of the sick—is almost ideally conserved, and this fact is recognized by rich and poor alike. Nurses are trained in them for the effective work which they afterward do. Internes receive in them the practical education which subsequently stands them in such good stead. Means for the scientific investigation of sickness are at hand, as are also the appliances for wise and effective treatment.

Dr. Francis C. Wood[1] calls attention, however, to one point at which improvement might still be made. In his opinion the part played by the pathologist is not accorded due recognition and weight. Certain it is that in the evolution of the modern hospital there is no function greater than his; nevertheless, till recently —and even now the situation obtains in perhaps most hospitals—the rank of the pathologist has been a subordinate one; he has not been appreciated, and the remuneration for his services has been shamefully inadequate.

In hospital treatment the "case" begins, not with the time of the patient's appearance, but with the ascertainment of his family and life history before his admittance—all of which is carefully recorded in the familiar way. Next come the examination and diagnosis; and here the pathologic laboratory must be in evidence constantly. How often does the pathologist aid in the establishment of a correct diagnosis, without which rational treatment is impossible? How often does he save an otherwise hopeless situation? Where else than in the laboratory is certain and immediate knowledge to be obtained of the nature of a lesion which must otherwise remain obscure, of the benignancy or malignancy of a tumor, of the kind of infection which must be dealt with? This department of medical science indeed marks more than any other the change from the old-time hospital to the present day institution, wherein so many brilliant results are achieved.

Indeed, it is often by the wise cooperation of the pathologist that the case reaches its ideal conclusion—the patient's departure from the institution in the enjoyment of recovered health. On the other hand, the sum total of medical knowledge is increased by study of "cases" that reach the autopsy table, where the attending physicians, internes and pathologists may review the whole history—the possibility that the examination or the diagnosis was at fault; the reasons why the treatment had proved inefficacious. Then the data collected during life can be compared with those revealed after death, all correct antemortem findings be verified and all erroneous opinions be disproved. By such rational study medical science directly, and the race indirectly, are benefited. Only in this way can we comprehend the achievements of an eminent physician, of whom it was said that at the outset of his career he buried himself for ten years in the morgue.

Dr. Wood's thesis is that the laboratory equipment and facilities should be at least on a par with those at the service of the attending physicians and surgeons, and that the hospital pathologist should eventually join its attending or visiting staff. In this country there is little prospect of any such advancement; and that is why promising young physicians are not attracted to such work, which should be the most congenial in medicine. Under present conditions, attending physicians, especially in hospitals which are not connected with medical colleges, are not always, nor necessarily, men trained in scientific methods. The internes whom they are to teach must all have passed rigorous examinations; but their instructors need not have done so. Often the attending physician is appointed at the instance of a patron who has dealt generously with the institution; or because he is well in touch with the board of trustees; or because of his friendship among the medical staff. This is not always conducive to the greatest good.

The plan outlined by Dr. Wood is not a chimera. It now obtains generally in European institutions where scientific work of the first importance is the rule. Such qualifications have long existed in Germany as necessary preliminaries to ward service. "All the great consultants and teachers there have passed through the laboratory," and it would be well if the importance of the hospital pathologist were appreciated here as it is abroad.

1. Hospital Laboratories; Their Organization and Function. Columbia University Quarterly, April, 1908.

DAMAGES FOR A PHOTOGRAPH AND A TESTIMONIAL.

In the United States Circuit Court, New York City, May 12, Judge Lacombe announced the award by the jury of $6,000 damages to a saleswoman in a department store who had sued the Lydia E. Pinkham Medicine Co. for having used her photograph in their advertisements without her consent. The saleswoman had pleaded that the publication of the advertisement caused her life to become unbearable. Her fellow workers made fun of her. In spite of her protest, the same advertisement and picture appeared in other New York papers and produced so much contempt for her that she was finally obliged to give up her employment. The story of how the photograph and testimonial were obtained follows certain exposures of the same kind. The plaintiff had been asked to permit a photographer to take her portrait on condition that he should be allowed to retain one of them for his show window. This was secured by the Lydia E. Pinkham Medicine Co. and with it a testimonial written by an acquaintance of the plaintiff, but without her knowledge. These were then used as set forth. The plaintiff testified that she neither wrote nor signed the testimonial and indeed never saw it before its publication; furthermore, that she had never tasted the Lydia Pinkham compound and never lived at the address given. This is one of the important decisions in this line, because the use of a photograph even without consent is not always considered by the courts a good reason for damages, and the amount awarded in this case, considering the circumstances of the plaintiff, shows that evidently an exemplary sentence was intended. Physicians generally should take note of this case since few newspapers are likely to publish an account of it because of their advertising arrangements with the Lydia E. Pinkham Medicine Company. The New York *Times*, Wednesday, May 13, gives a rather full account of the case.

A DUTY OF THE PROFESSION.

Elsewhere[1] we publish an earnest appeal, both to the members of the medical profession and to our colleagues of the medical journalistic guild. The appeal comes first not to "the profession," for so long as anything continues everybody's business it remains nobody's business, but to the conscience of each individual member of the profession—yes *your* conscience, reader. Next it comes to those editors—and there are some assuredly—in whose hearts there arises an abhorrence of all kinds of fraud, who realize their enmeshment in one particular kind, the paresis caused by which renders futile all their struggles against the others. And with the appeal a way of escape is pointed out. If, as Dr. Sollmann says, these editors deem the Council's rules vicious, let them put their fingers on the viciousness and show the Council how to eliminate the bad without destroying the good. If they agree with the rules but differ as to the extent of their application, then let them either undertake their own investigation and apply them accordingly, or let them at least accept the Council's results where they are proved beyond a peradventure. By undertaking to exclude the advertisements of all those articles that have been definitely convicted of fraud until such time as the conviction can be quashed in the court of common sense, or until the offense has been purged—by going even this far with the Council, not only will they give ease to their own consciences and arouse sympathetic forbearance with them in their efforts to free themselves, but they will also exercise a most powerful leverage to persuade hesitating preparations into passing over to the right side of the border line.

1. Department of Pharmacology, page 1705.

THE SENSE OF DIRECTION.

It is one of the puzzling questions of comparative psychology how to account for the homing instinct of certain of the lower animals. Remarkable stories occasionally go the rounds of the lay press, some of them doubtless apocryphal, of cats and dogs finding their way home over hundreds of miles of territory which must have been absolutely unknown to them by any former experience. Less striking instances have probably, at some time or another, come under almost everybody's observation. Mr. Benjamin Kidd, the well-known English writer, has recently discussed[1] this faculty, which he considers the most remarkable phenomenon in animal instinct. He points out that it apparently bears no necessary relation to the general intelligence of the animal. Moreover, as many have observed, it is not an endowment of every individual of those species which display it most; there are many dogs and some cats that appear to have it to a very slight degree. The phenomenon possesses some human interest, as there is reason to believe that, in common with other instinct endowments, it is sometimes shared by man. Asylum physicians have observed cases where almost utterly demented patients, unable to answer intelligently the simplest questions, have escaped and made their way to distant homes over routes they could hardly have learned through a rapid trip in a railway car, it may be at night. Of course such cases are exceptional, but admitting, as we must, the reality of such performances in the lower animals, there is no great strain on the credulity to admit also their possible occurrence in our own species. The subject is one that does not seem to have received the attention that its interest merits. It may not be easy to say how it can be profitably investigated, so far as its application to man is concerned, but it does seem worthy of at least a tentative study by psychologists.

1. Century Magazine, April, 1908.

VAPOROUS URINE AND NEBULOUS RATIOCINATION.

A writer in *Items of Interest*, a dental journal, propounds the theory that "spongy gums, loose teeth, absorption of the maxillaries," an odor of urine in the breath, "the calcarious (sic) condition of the teeth caused by uric acid deposits," rheumatism—concerning which "the physician is right when he says" that it "is caused by a surplus of uric acid in the blood," though "the medical text-books have not told how it enters the system"—and in short the whole dire results known and

unknown that constitute the so-called uric-acid disease are due to sleeping in a room with an uncovered chamber vessel. "The oxygen of the air which is taken up by the blood is charged with vaporous urine which gets into the human system, first, by inhalation into the lungs, and, second, by condensation in the nasal fossa whence it is swallowed into the stomach, thus having access to all the vital organs and producing an excess of urine in the system which makes the conditions abnormal and setting free the uric acid." Surely, even a dental journal should have a filter at its Pierian fount with meshes small enough to prevent such chunks of sediment as these from passing through.

CANCER IN THE TROPICS.

Dr. Dudley's article in this issue[1] is of interest, not only as contradictory to any general statement that cancer is rare in the tropics, but also as bearing on certain other questions of the etiology of the disease. The Filipinos are practically vegetarians and their liability to malignant diseases disposes of the claim, made not infrequently by advocates of an exclusively vegetable diet, that cancer is a result of meat eating, though the somewhat less frequent occurrence of gastric cancer among them suggests, as Dudley intimates, that an unirritating vegetable diet with comparatively temperate habits as regards alcoholics may have an influence in sparing the stomach from the disease. The irritation of clothing, he shows, can not be well invoked as a cause of the frequency of mammary cancer. Cancer appears to be on the increase in civilized communities—has the more or less partial acquirement of civilization by the Filipino had any influence and in what classes of the population is it most prevalent? It would seem that climatic, physiographic, ethnologic and sociologic studies of cancer in a tropical country where it appears to be exceptionally frequent might throw some useful sidelight on the etiology of a disease that is just now one of the puzzling problems of medical science.

BROMO-SELTZER AND COMMERCIAL RESPONSIBILITY.

One can not but be impressed with the growing regard for the sacredness of human life. The demands in various quarters for legislation in the line of employers' liability is but a reflection of this sentiment. The latest example of—if not admitted, at least inferred—responsibility has been brought to our notice by a correspondent in connection with the makers of Bromo-Seltzer. The manufacturers of this acetanilid-containing "nerve lullaby" and "mental invigorator" are issuing a little memorandum book and calendar for advertising purposes. In itself this would hardly call for comment, but examination of the booklet shows an awakening of the commercial conscience which is as welcome as it is unlooked for. Realizing the heavy responsibility assumed in the indiscriminate sale of dangerous heart-depressing poisons and evidently anxious to offset as far as possible the enormous damage to health of which the exigencies of commercial competition have made them guilty, the makers of this "morning bracer" have risen to their opportunities. Just inside the cover of the freely distributed memorandum book we find an identification card to be filled out by the user of Bromo-Seltzer. Thus, should history repeat itself, the little booklet will be the means of allowing the ambulance surgeon to notify the nearest relative and permit the remains to be carefully disposed of. Nor is this all. Appreciating the vast recuperative powers possessed by the human body when given a chance, we find on a subsequent page a brief account of what to do in case of poisoning—how to act until the doctor arrives. We commend to other dispensers of "patent medicines" the forethought and consideration here displayed by the manufacturers of Bromo-Seltzer. Nothing is to be lost by these human touches mixed with the hard matter-of-fact pursuit of commercial success. The principle, too, lends itself to expansion. For example, a small paid-up insurance policy might be issued with every large size can of Antikamnia, while a free course of treatment at a whisky cure guaranteed to every purchaser of Peruna would unquestionably increase the testimonial file at Hartman's "laboratory."

1. Page 1663.

Medical News

CALIFORNIA.

Society Organized.—At a meeting of the physicians of Imperial Valley, held in Imperial, April 16, the Imperial Valley Medical Society was organized with the following officers: President, Dr. George M. Bumgarner, Imperial, and secretary-treasurer, Dr. Cooke, Brawley. Monthly meetings are to be held alternately at the towns of Imperial, El Centro and Brawley.

Alleged Medical Fakers Arrested.—Under the direction of the United States District Attorney, eleven alleged quack practitioners of Los Angeles were arrested April 21. Among these were Julien A. Macrae, "mental healer," and "Licentiate" of esoteric philosophy; Charles C. Summer, William A. Clark, Mrs. Inez Decker, Mrs. A. Laiyon, Mrs. M. Woods, Mrs. C. E. Smith, E. E. Eads, Haigh, Taylor, and Alice von Rickert. Under the statutes they are to be proceeded against for using the mails in correspondence regarding the use of dangerous drugs to prevent childbirth.

Vital Statistics.—During March there were reported 2,135 births, equivalent to an annual birth-rate of 12.5 per 1,000. The deaths for the month, excepting stillbirths, were 2,860, equivalent to an annual mortality of 16.8 per 1,000. Of these 463 or 16.2 per cent. were from various forms of tuberculosis; 442 or 15.4 per cent. were from diseases of the circulatory system, and 366 or 12.8 per cent. from pneumonia or other diseases of the respiratory system. Deaths from epidemic diseases were as follows: Diphtheria, 39; typhoid fever, 35; influenza, 27; measles, 17; whooping cough, 13, and malaria and scarlet fever, each 15.

Hospital Notes.—The physicians of Monterey are building a new sanatorium on the cottage plan. All the rooms for patients open by French windows on a sun porch having a southeast exposure and overlook the bay of Monterey. The new sanatorium will be known as Monterey Heights and will succeed the Lillie Sanatorium.——Dr. J. Emmett Clark is building a three-story building at Alameda to be known as the White Cross Hospital.——The Sisters of Charity Hospital at Sterling City is practically completed and will soon be open for patients. ——The Rideout Memorial Hospital, Marysville, opened to receive patients May 1.

ILLINOIS.

Society Meeting.—At the thirty-second annual meeting of the Brainerd District (Ill.) Medical Society, held in Lincoln, April 30, the following officers were elected: President, Dr. John M. Wilcox, Clinton; vice-presidents, Drs. Don W. Deal, Springfield; John W. Bozarth, Mount Pulaski, and Chauncey W. Cargill, Mason City; Secretary, Dr. Harry S. Oyler, Lincoln;

treasurer, Dr. Charles C. Reed, Lincoln, and censors, Drs. Irving Newcomer, Petersburg, Berton W. Hole, Springfield and Charles M. Noble, Bloomington.

Personal.—Dr. James M. Postle De Kalb, has moved to Elgin and will take charge of the practice of the late Dr. Carlton E. Starrett.——Dr. D. C. L. Mease, Freeport, has been elected president of the Stephenson County Telephone Company.——Dr. Elisha C. Dunn, Rockford, for fifteen years a member of the council, is said to have been found guilty of having received bribes, and to have been fined $2,000.——Prof. George A. Kemp of the University of Illinois, Urbana, has resigned, to take effect September 1.——Dr. Leslie Rutherford, Peoria, left for Europe May 12.

Chicago.

Personal.—Dr. Frank Billings and daughter have returned from a trip to the Mediterranean.

Bequest to Hospital.—By the will of the late Mrs. Harriet S. Jones, St. Luke's Hospital and the Children's Memorial Hospital are each to receive $5,000 before May 1, 1911.

Cocain Seller Fined.—Louis Ellisburg, a druggist, charged with the illegal selling of cocain and morphin, is said to have pleaded guilty, May 13, and to have been fined $200 and costs.

New Trial Denied.—A motion for a new trial in the case of P. S. Scoda, charged with practicing medicine without a license, and fined $200 April 30, was denied by Judge Scovill, May 9, and judgment entered.

Banquet to Dr. Williams.—In honor of the twenty-fifth anniversary of his entrance into active practice in Chicago, Dr. Daniel H. Williams was the guest of honor at a banquet given by prominent colored people of the state. Colored physicians of New York presented Dr. Williams with a loving-cup and the colored physicians of Boston sent a silver-mounted inkstand.

Contagious Disease Situation.—The Department of Health received notification of 553 cases of communicable diseases during the week, distributed as follows: Measles, 303; scarlet fever, 78; diphtheria, 61; tuberculosis, 36; whooping cough, 29; chickenpox, 24; typhoid fever, 14; and smallpox, 1. As compared with the preceding week, there were 15 more cases of diphtheria, 32 more cases of scarlet fever, 34 fewer cases of measles, 21 fewer of typhoid fever, and 3 fewer of smallpox.

Mortality of the Week.—During the week ended May 16, 635 deaths were reported, 104 more than for the week preceding, but 72 less than for the corresponding week of 1907. The greatest increases for the week were among relatively chronic diseases, and were probably hastened by the damp days and the sudden and marked changes of temperature.——The mortality from nephritis increased 19; from cancer, 16; from cerebral hemorrhage, 13; and from heart disease, 9.——Chief among death causes were the following: Pneumonia, 74; tuberculosis, 63; heart diseases, 57; violence (including suicide), 54; cancer and nephritis, each, 42; acute intestinal diseases, 35; typhoid fever, 11; scarlet fever, 10; whooping cough, 8; influenza and measles, each, 5; and diphtheria, 3.

INDIANA.

Charged with Failure to Report Disease.—W. E. Nichols, Andrews, charged with illegal practice of medicine, at the instance of the Huntington County Medical Association, from which Dr. Nichols is said to have been expelled some time ago, is now charged by the secretary of the Andrews board of health with having failed to report a case of smallpox.

Unlicensed Practitioner Acquitted.—In the case of E. L. Burns, Bloomington, charged with practicing medicine without license, on complaint of the Monroe County Medical Society, the jury found the defendant not guilty. His defense was that he does not pose as a physician, but treats cancer without giving medicine or prescribing as a regular licensed practitioner.

Society Meetings.—The Franklin County Medical Society was recently reorganized in Brookville by the district councilor, Dr. David W. Stevenson, Richmond, with a membership of 13. The following officers were elected: Dr. Evan L. Patterson, Brookville, president; Dr. Calvin Carter, Brookville, vice-president; Dr. Clifford H. Mayfield, Brookville, secretary; Dr. James F. West, Brookville, treasurer; and Drs. Philip L. Mull, Oldenburg, and Henry Gregory, Laurel, censors.——At the annual meeting of the Gibson County Medical Society, held in Princeton, the following officers were elected: President, Dr. George C. Kendle, Princeton; vice-president, Dr. Harry B. Gudgel, Hazleton; secretary, Alois L. Ziliak, Princeton; and censors, Drs. William T. Williamson, Fort Branch; Martin A. Montgomery, Owensville, and Dudley H. Swan, Francisco.

IOWA.

Distribution of Medicine Samples Prohibited.—The Board of Health of Davenport has adopted resolutions to prevent the distribution of samples of medicine within the city limits.

Chiropractor Guilty.—F. M. Miller, Marshalltown, a "chiropractor," charged with practicing medicine without first having secured a certificate from the State Board of Medical Examiners, is said to have been found guilty March 26.

Many Medicine Peddlers.—According to a compilation recently completed by the secretary of the State Pharmacy Commission, there are 301 licensed itinerant vendors of patent medicines in the state, from each of whom an annual license of $100 is exacted.

State Pathologist's Report.—In his quarterly report, Dr. Henry Albert, state bacteriologist, states that 2,458 examinations were made in the State Board of Health bacteriologic laboratory during the first three months of the year. Of these 1,242 were for diphtheria, 873 for tuberculosis and 153 for typhoid fever.

Physician Loses Damage Suit.—In the suit of Russell Johnston, Salina, versus Dr. Charles E. Ruth, formerly of Keokuk, in which $10,000 damages were claimed on account of the alleged leaving of a piece of gauze in the abdomen after an operation for appendicitis, the jury is said to have returned a verdict for $2,000 against Dr. Ruth, April 18.

KANSAS.

Health Board Reappointed.—The governor has reappointed the following members of the State Board of Health: Drs. Alexander B. Scott, Jetmore; Jonathan B. Carlile, Leon, and Clay E. Coburn, Kansas City.

Smallpox.—Smallpox is reported to be prevalent in outlying portions of Kansas City, where there are 42 cases.——Three new cases of smallpox developed in Muscotah, April 25. The public schools and churches have been closed.——Several new cases of smallpox are reported northwest of Atchison.

Commencement.—At the eighteenth annual commencement exercises of Kansas Medical College, Medical Department, Washburn University, Topeka, April 23, a class of 13 was graduated. Dr. William S. Lindsay, dean of the faculty, presided. The degrees were conferred by President Norman Plass of Washburn University, and the doctorate address was delivered by Dr. Henry Coe Culbertson, president of the College of Emporia.

Personal.—Dr. Derastus E. Smith, assistant police surgeon of Kansas City, has been elected surgeon for the Fireman's Relief Association, vice Dr. John W. Faust.——Dr. F. M. Thomas, Leonardville, had a serious attack of heart disease May 1, but is reported to be better.——Drs. William A. Euhren and Mark L. Bishoff, who have been employed as assistant surgeon and dispensary physician respectively at the Santa Fé Hospital, Topeka, have started for Vienna.

KENTUCKY.

Resolutions Regarding Dr. Cartledge.—The Jefferson County Medical Society, at a special meeting passed resolutions expressing their esteem for their late member, Dr. A. Morgan Cartledge, and extending their sympathy to the bereaved family.

Declared Not Guilty.—The court of appeals in the case of the commonwealth of Kentucky against Dr. Sarah A. Murphy, Louisville, has decided that the testimony does not show that Dr. Murphy was guilty of the criminal offense charged against her and that the direction of the jury to render a verdict of not guilty was correct.

MASSACHUSETTS.

Society Meetings.—At the annual meeting of the Hampden District Medical Society, held in Springfield, April 24, the following officers were elected: Dr. George L. Woods, Springfield, president; Dr. Charles W. Jackson, Monson, vice-president; Dr. Richard S. Benner, Springfield, secretary-treasurer; Dr. James E. Marsh, Springfield, censor; and Dr. Locero J. Gibbs, Chicopee Falls, commissioner of trials.——Berkshire District Medical Society at its annual meeting at Pittsfield, April 30, elected Dr. John J. Hassett, Lee, president; Dr. Harry B. Holmes, Adams; vice-president; Dr. Isaac S. F. Dord, Pittsfield, secretary; and Dr. William L. Paddock, Pittsfield, treasurer.——At the annual meeting of the Middlesex North District Medical Society, held in Lowell, April 29, Dr. William B. Jackson was elected president; Dr. Clarence A. Viles, vice-president; Dr. Archibald R. Gardner, secretary; and Dr. Thomas B. Smith, treasurer, all of Lowell.——At the first annual meeting of the

Bristol North District Medical Society, held in Taunton, April 16, the following officers were elected: President, Dr. Elliott Washburn; vice-president, Dr. Arthur V. Goss; secretary, Dr. Ralph D. Dean; treasurer, Dr. William Y. Fox; and librarian, Dr. Thomas F. Clark, all of Taunton.——At the annual meeting of Plymouth District Medical Society, held in Brockton, April 15, the following officers were elected: President, Dr. Frederick J. Ripley; vice-president, Charles S. Millet; and secretary-treasurer and reporter, Dr. Alfred C. Smith (re-elected).——The Worcester North District Medical Society, at its fiftieth annual meeting, held in Fitchburg, April 28, elected the following officers: Dr. John G. Henry, Winchendon, president; Dr. Eustace L. Fiske, Fitchburg, vice-president; Dr. Walter F. Sawyer, Fitchburg, secretary; and Dr. Luther G. Chandler, Townsend, commissioner of trials.——At the second annual meeting of Springfield Academy of Medicine, held April 14, the following officers were elected: President (re-elected), Dr. Walter A. Smith, Springfield; vice-presidents, Drs. John A. Houston, Northampton, and Ralph H. Seelye, Springfield; director, Dr. Oscar W. Roberts, Springfield; censor, Dr. Theodore S. Bacon, Springfield; secretary, Dr. Joel I. Butler, Springfield; and treasurer, Dr. Harvey W. Van Allen, Springfield.

MISSOURI.

Personal.—Dr. John J. Farrell, Hannibal, leaves for Europe early next month.——Dr. Walter S. Wheeler has been appointed quarantine physician of Kansas City, vice Dr. Eugene Carbaugh.

Will Not Prescribe Whisky.—The members of the Boone County Medical Association, at the April meeting, are said to have pledged themselves not to prescribe whisky for any cause whatsoever.

Commencement.—The twenty-seventh annual graduating exercises of the University Medical College of Kansas City were held May 8. Rev. J. M. P. Johnson, St. Louis, delivered the annual address, and a class of sixty-three was graduated.

Fined for Prescribing Liquor.—Dr. C. W. Jones, who was arrested at Columbia, charged with the illegal sale of liquor, is said to have been found guilty and to have been given the maximum fine of $200, May 2. The plea of the defendant was that the prescriptions on which it was claimed he had sold liquor, were forged. The case has been appealed to the Circuit Court.

St. Louis.

Object to Maternity Hospital.—The residents of the neighborhood have entered a protest against the location of the Maternity Hospital at 3416 Lucas Avenue, claiming that the institution, purporting to be a charity is in reality a money-making scheme.

Personal.—Dr. J. Wilbur Shankland, assistant superintendent of the City Hospital, has gone East for special study.——Dr. Edward J. Hogan on May 7 applied for a mandamus to compel the State Board of Health to allow an appeal in the case which resulted in the revocation of his license to practice medicine in July, 1906, and to certify the proceedings in that case to the Circuit Court.

Law Cases.—The suit of Dr. Louis E. Barricelli against the members of the Italian American Cooperative Society for $5,450 damages, on account of his removal as physician for the society, was dismissed, April 13, the plaintiff's attorney stating that his client had been reinstated.——In the case of Dr. Adolphus Dietz against the estate of Dr. Louis L. McCabe for $10,774, for professional services said to have been rendered the deceased physician, a jury in Judge Rules' court decided against the plaintiff, April 20.

MONTANA.

Sattler in Butte.—Dr. Herbert Sattler, Leipsic, Germany, visited Butte recently, on his return home by way of the west from India and China.

Personal.—Dr. Frances J. Adams, Great Falls, has qualified as a member of the local board of health, and has been elected secretary of the body.——Dr. Louis H. Fligman, Helena, has left Berlin for Paris, where he will remain for four months before returning to the United States.——Dr. G. A. Chevigny, Butte, has been appointed a member of the State Board of Medical Examiners.——Dr. Charles K. Vidal, Belt, has been appointed secretary of the Cascade County Board of Health, to succeed the late Dr. Charles A. Brady, Great Falls, and Dr. John H. Fairfield, Great Falls, has been appointed coroner of the county to fill out the unexpired term of Dr. Brady.——Dr. Russell G. Gwinn, Missoula, has returned from an extended visit to the East, and will devote himself exclusively to treatment of diseases of the eye and ear.

NEBRASKA.

Physician Acquitted.—The case of the state against Samuel S. Weidner, Fairbury, charged with performing a criminal operation, was decided in favor of the defendant, March 28.

Omaha Medical Library.—Omaha has a medical library of about one thousand volumes, with about seventy-five magazines on file. The library is in the public library building and is handled, catalogued, and classified by the city library corps. Miss Margaret O'Brian is the librarian in charge of the department. The Medical Society of Douglas County appoints a committee and appropriates money for the maintenance of the library.

Society Meetings.—At the annual meeting of the Clay County Medical Society, held in Clay Center, April 11, Dr. Bruno J. F. Getzlaff, Sutton, was elected president; Dr. J. Oscar Latta, Clay Center, vice-president, and Dr. Adam R. Ray, Fairfield, secretary-treasurer.——At the annual meeting of the Cuming County Medical Society, held in West Point, April 25, the following officers were elected: President, Dr. Harry W. Francis, Bancroft; vice-president, Dr. Charles S. Grabin, Beemer, secretary-treasurer, Dr. Harry L. Wells, West Point, and delegate to the state association, Dr. Henry S. Summers, West Point.

NEW HAMPSHIRE.

Graduation Exercises.—The annual graduation exercises of Dartmouth Medical School, Hanover, took place March 27. Dr. William J. Beattie, Littleton, delivered the doctorate address, and degrees were conferred on a class of nine by Dr. William T. Smith, dean of the school.

State Society Meeting.—At the one hundred and seventeenth annual meeting of the New Hampshire Medical Society, held in Concord, May 14 and 15, the following officers were elected: President, Dr. John M. Gile, Hanover; vice-president, Dr. Frank Blaisdell, Goffstown; councilors, Drs. Alpha H. Harriman, Laconia, Belknap County, and Milton S. Woodman, West Lebanon, Grafton County; trustee, Dr. William T. Smith, Hanover; member of Board of Medical Examiners, Dr. J. Franklin Robinson, Manchester; alternate, Dr. George C. Wilkins, Manchester; delegate to Dartmouth Medical College, Arthur C. Heffenger, Portsmouth; anniversary chairman, Dr. Howard N. Kingsford, Hanover, and necrologist, Dr. Eli E. Graves, Penacook. A committee, consisting of Drs. William T. Smith, Hanover, John W. Parsons, Portsmouth, Edgar O. Crossman, Lisbon, Charles A. Morse, Newmarket, and Louis W. Flanders, Dover, was appointed to express to the governor of the state the conviction of the members that there is continued and great need of a state sanatorium for consumptives.

NEW JERSEY.

Food and Drug Inspection.—During the month ended April 30, 711 food and drug samples were examined in the State Laboratory of Hygiene, 605 of which were found to be above, and 106 below standard.

Society Meetings.—At the annual meeting of Cape May County Medical Society, held in Cape May April 14, Dr. Virgil M. D. Mercy was elected president, and Dr. Anna M. Hand, vice-president, both of Cape May.——Hunterdon County Medical Society, at its meeting, April 30, elected the following officers: President, Dr. Theodore B. Fulper, Junction; vice-presidents, Drs. Enoch Blackwell, Clinton, and G. Henry, Flemington; secretary, Dr. Obadiah H. Sproul, Flemington; treasurer, Dr. Isaac S. Cramer, Flemington; reporter, Dr. Morris H. Leaver, Quakertown; and censors, Drs. George L. Romine, Lambertville; George N. Best, Rosemond, and Willard E. Berkow, Annandale.——The sixty-fourth annual meeting of Camden County Medical Society was held in Camden, April 28, when the following officers were elected: President, Dr. Paul M. Mecray, Camden; vice-president, Dr. William B. Jennings, Haddonfield; secretary, Dr. Daniel Strock, Camden; treasurer, Dr. A. Haines Lippincott, Camden; historian, Dr. Alfred Cramer, Camden; reporter, Dr. Harry H. Sherk, Camden; censor, Dr. William H. Iszard, Camden, and trustee, Dr. H. Genet Taylor, Camden.

NEW YORK.

Tuberculosis Clinic Open.—The Rome Tuberculosis Clinic was opened to the public April 30. It will be open on Tuesdays, Thursdays and Saturdays from 12 m. to 1 p. m., and from 8 to 9 p. m. Those in charge are Drs. Thomas P. Sculley, Arthur A. Gillette, Thomas G. Nock, J. Orley Stranahan, Henry D. White and Howard F. Hubbard.

Communicable Diseases of the State.—During March there were reported to the New York State Department of Health 12,019 cases of measles, 5,831 cases of scarlet fever, 2,777

cases of tuberculosis, 2,308 cases of diphtheria, 357 cases of typhoid fever, 108 cases of smallpox, 76 cases of cerebrospinal meningitis, and 4 cases of ophthalmia neonatorum.——Niagara Falls is said to have about 400 cases of typhoid annually, with from 30 to 40 deaths.——At the House of Providence, Syracuse, 35 cases af measles are reported.——There are said to be 5 smallpox patients at the Niagara Falls quarantine station.——On account of the prevalence of diphtheria in Manchester, the infected houses have been placed in strict quarantine.

Bills Signed.—Governor Hughes has signed the following bills: Mr. Hemmenway's, authorizing boards of supervisors to establish county laboratories, each in charge of a trained county bacteriologist and such assistants as may be required, compensation of such officers to be fixed by the board; Mr. B. R. Robinson's, providing for the election annually after the year 1908 of seven trustees of the New York Dispensary and regulating the powers of the board; and Senator Davis's, authorizing superintendents of state hospitals for the care of the insane, except the Matteawan and Dannemora State hospitals, to receive voluntary patients.

Personal.—Dr. Grosvenor R. Trowbridge, Buffalo, is reported seriously ill.——Dr. Lester W. Bellows has been recommended as health officer of Waterloo to succeed Dr. William W. Carleton.——Dr. Jason Parker has been elected a member of the board of health and Dr. John W. Nelson physician to the poor of Jamestown.——At the meeting of the Fiftieth Separate Company, Rochester, Dr. Archibald S. Knight, assistant surgeon, was presented with a sabre.——Dr. and Mrs. Edward S. Van Duyn, Syracuse, have returned from Egypt.——Dr. George D. Barrett has been made health officer of Clyde.——Dr. Charles S. Roberts is said to have been expelled from the Syracuse Academy of Medicine, April 20, for violation of the principles of ethics by advertising and exploiting a remedy for consumption.——Dr. Major A. Veeder has been made health officer of Lyons.——Dr. Henry F. Hutchinson, Hulberton, has been recommended as health officer of Holly, vice Dr. Frank B. Storer, term expired.——Dr. Douglas C. Moriarta has been appointed health officer of Saratoga.

Court to Name Experts.—A committee of five, consisting of Drs. John A. Wyeth and Edward D. Fisher, New York City; Dwight H. Murray, Syracuse, A. Walter Suiter, Herkimer, and Algernon T. Bristow, Brooklyn, have been appointed to cooperate with a similar committee from the State Bar Association regarding the naming of medical experts. The recommendations apply only to civil proceedings and provide that any court in which any medical or surgical question is likely to be material, may on its own motion or at the request of either party to the suit, appoint from a list made up by a committee of the Academy of Medicine and the State Medical Society, one or more persons learned in the science of medicine and surgery, who shall investigate the facts of the case and give their opinion in writing to the court, the New York Academy of Medicine making up the eligible list for Greater New York, and the State Medical Society for the remainder of the state. The men whose names are submitted must be of good standing, of not less than seven years' actual experience, and shall be recognized as "competent and expert in medicine and surgery." Such official experts shall be paid by the court out of the treasury of the county, a minimum fee of $50 for the examination of, and report on, a case, $50 additional for the first day's attendance in court and $100 a day thereafter.

New York City.

Funds for Consumptive Children.—Forty-one chocolatières took part in an entertainment in the ballroom of the Plaza, April 22, and raised more than $3,000 to go toward the support of free beds for consumptive children at the Loomis Sanatorium.

Woman's Medical Society Formed.—The Woman's Medical Society of New York State on May 2, filed a certificate of incorporation. The directors include Drs. Mary I. Dentoń, Buffalo; Mary H. Cotton, New York; Sarah R. A. Dolley, Rochester, and Florence A. Sherman, Watertown.

First Cocain Conviction.—A druggist in Mott Street was convicted before Judge Malone in General Sessions of having sold cocain to an agent of the Department of Health. This is the first conviction under the new cocain law. The maximum penalty is one year in prison and a fine of $1,000.

New Building for Infirmary.—On May 14 ground was broken by Dr. Charles B. Meding, secretary and surgeon to the Harlem Eye, Ear and Throat Infirmary, for the new building at Lexington Avenue and One Hundred and Twenty-seventh Street. The infirmary treats about 6,000 patients a year.

Gibb Memorial Prize.—The committee on the Edward N. Gibb Memorial prize declines to award the prize this year. At the suggestion of the Committee, the board of trustees, with the consent of the donor, made a gift of $500 for the essay "E. Pluribus Unum" by Dr. Normal E. Ditman, New York City.

Verdict Against Eddyite.—In the Supreme Court, April 22, a jury rendered a verdict of $20,000 damages against Julius Benjamin, an Eddyite healer, who was sued for $25,000 damages by Solomon Register on account of alleged improper treatment of a sore toe, necessitating eventually amputation of tne leg of the complainant.

More Money Needed for Charity.—The State Charities Aid Association has asked for $1,735,000 for the Department of Public Charities, to be used to provide additional accommodations for tuberculous patients, to provide or make available, additional hospital beds in Brooklyn, and for additional accommodations for almshouse inmates.

Quarantine and the Plague.—Health Officer Dr. Alvah H. Doty has announced that owing to the spread of bubonic plague in Venezuela, and the unwillingness of that government to give a frank statement regarding conditions, all vessels from Venezuelan ports will be held at quarantine until further notice for inspection and fumigation.

Personal.—Dr. William T. Bull was operated on for abscess in a small gland of the neck, April 25.——The complaint against Dr. Charles M. Bellows, Brooklyn, for exceeding the speed limit in his motor car was dismissed in the Yorkville court, April 18.——The house staff of Bushwick Hospital, Brooklyn, gave a supper in honor of L. M. Pinco, house surgeon, who has resigned to continue study in Europe.

Contagious Diseases.—There were reported to the sanitary bureau for the week ended May 9, 1,668 cases of measles, with 47 deaths; 908 cases of scarlet fever, with 43 deaths; 518 cases of tuberculosis, with 185 deaths; 394 cases of diphtheria, with 37 deaths; 32 cases of typhoid fever, with 8 deaths; 32 cases of whooping cough, with 5 deaths; 8 cases of cerebrospinal meningitis, with 7 deaths; and 136 cases of varicella, a total of 3,696 cases and 332 deaths.

Pure Food Law Effective.—In a talk before the Society of Medical Jurisprudence, Dr. Darlington, president of the Board of Health, stated that the pure food law had been effective in this city. Out of 800 samples of food recently collected, only 35 were found to be adulterated, and of these only five cases were worth prosecuting. It is evident that an overwhelming majority of manufacturers, jobbers and dealers are determined to do their utmost to conform to the law. The city markets, retail stores, bakeries and other places where foods are prepared and sold are constantly under supervision. During the past year 3,533,858 pounds of such foodstuffs, including fish, were seized and destroyed, while 7,540,516 pounds of fruit met with the same fate. Substitution and misbranding have almost entirely disappeared.

NORTH CAROLINA.

Hospital News.—The contract for the construction of the new Watts Hospital, Durham, has been let at a cost exceeding $200,000 for the building alone, and work will begin May 1. The main building will be 80 by 256 feet, of fire-proof construction and three stories in height. The donor, Mr. George W. Watts, purposes to provide in addition to the site and building, which are his personal gift to the city of Durham, a sufficient endowment to maintain the institution in perpetuity.

Society Meetings.—The second annual meeting of the Sixth District Medical Association was held in Durham, April 23. The following officers were elected: President, Dr. Norman M. Johnson, Durham; vice-president, Dr. Thomas S. Faucette, Burlington; secretary, Dr. W. Arthur Bradsher, Roxboro.——The third semi-annual meeting of the Tenth District Medical Association was held in Asheville under the presidency of Dr. Lewis B. McBrayer. Dr. William R. Kirk, Hendersonville, was elected president; Dr. Charles S. Jordan, Asheville, vice-president; and Dr. Thomas E. W. Brown, Asheville, secretary.

OHIO.

Communicable Diseases.—During the last week of April 2 cases of cerebrospinal meningitis were reported in Alliance.——Several cases of scarlet fever have developed in Delphos.——Mansfield reports 3 cases of scarlet fever.——At Oxford College 8 cases of smallpox are reported.——A number of cases of smallpox are reported in New Bremen, where schools have been closed and public gatherings interdicted.——Smallpox is reported prevalent in Cottonwood, adjacent to Toledo.

State Medical Society Meeting.—At the sixty-second annual meeting of the Ohio State Medical Association held in Columbus, May 6, 7 and 8, the following officers were elected: President, Dr. David R. Silver, Sidney; vice-presidents, Drs. Florus F. Lawrence, Columbus; Jehu Eakins, Gallipolis; Alonzo B. Walker, Canton, and Harry G. Noble, St. Mary; councilors, Drs. Clyde E. Ford, Cleveland, and Charles D. Mills, Marysville; and member of national policy committee, Dr. Benjamin R. McClellan, Xenia.

Welfare League.—The Welfare League of Ohio was organized in April, with headquarters in Columbus. Its object is to secure enactment of laws for the betterment of sociologic and sanitary conditions. Plans are already under way for the organization of county societies in Ross, Madison and Greene counties. Dr. John W. Clemmer and Maurice P. Hunt, Columbus, are vice-presidents of the organization. The duties of the league toward its members are outlined as follows: To bring reports of all violations of welfare laws to the attention of the respective federal, state, county and municipal officers; to assist in the prosecution of all cases where such assistance is desired or practicable; to disseminate literature from time to time relating to the declared purpose of the league, and to furnish speakers to address public meetings held under the auspices of the league.

Ill and Injured.—Dr. Thurston H. Rowles, Cambridge, was injured in a runaway accident May 4.——Dr. George W. Crile, Cleveland, was thrown from his automobile, April 26, but escaped serious injury.——Drs. John C. Tritch and Milton S. Williamson, Findlay, who were injured in a runaway accident April 17, are reported to be improving.——Dr. A. Melville Crane, Marion, sustained severe injuries in a fall from a tree, April 24.——Dr. Louis M. Early, Columbus, has entered a hospital in that city to undergo amputation of the right hand, for disease said to be due to persistent use of the *x*-ray. ——Dr. Clarence E. Gourley, New Alexandria, was painfully injured, April 20, in a runaway accident.——Dr. A. E. Griffin, Columbus, who has been an invalid for eighteen months, has recovered and resumed practice.——Dr. John H. Rodgers, Springfield, who was operated on at the Lakeside Hospital, Cleveland, recently, is said to be convalescent.

Personal.—Dr. Daniel B. Aldrich, Ashtabula, was the victim of a highway robbery, May 6, while making a professional call.——Dr. William H. Benner has succeeded Dr. Harmon B. Gibbon as health officer of Tiffin.——Dr. Mary A. Platter, Chillicothe, has been appointed assistant physician at the Presbyterian Hospital, San Juan, Porto Rico.——Dr. Gannett, Columbus, has succeeded Dr. John M. Thomas as physician at the Ohio State Penitentiary, Columbus.——Dr. F. Marion Kent, Bellevue, has been appointed surgeon of the Toledo division of the Pennsylvania System, vice Dr. H. C. Aurand, resigned.—— Dr. Henry F. Kattenhorn, Cincinnati, has returned from a trip to South America and Africa.——Dr. John O. Stewart, Cedarville, has been re-elected president of the local board of health. ——Dr. John S. Zimmerman, Youngstown, has been appointed examining physician of the Glenwood Children's Home during the absence of Dr. Ida Clarke, who has gone to Europe. ——Dr. Elmer S. Protzman has been elected secretary of the Kenton board of health.

PENNSYLVANIA.

Philadelphia.

Institute's Permanent Home.—After long and fruitless efforts to acquire property at Seventh and Lombard streets, the Henry Phipps Institute has abandoned negotiations and will establish the institute at 236 and 238 Pine Street.

Hospital Needs Help.—At the one hundred and seventy-fifth annual meeting of the contributors of the Pennsylvania Hospital there was a discussion as to the best means for increasing the income of the hospital, and a more general appeal to the public for working funds was advocated. The annual report showed a grand total of 45,883 patients treated in all the departments of the hospital during the year. The expenditures were $191,210.85, of which amount only $15,253.20 was received from patients. As the expenses exceeded the income from endowments and other sources by $40,000, this had to be provided for by a temporary loan.

Money to Charity.—The provisions of the will of the late Joseph Tagert Macauley, who left the greater part of $60,000 to the Sisters of St. Francis, in charge of St. Agnes' Hospital, were upheld in a decision handed down May 2 by Judge Anderson in Orphans' Court.——A provisional bequest of $134,108 to the Methodist Hospital is contained in the will of the late L. P. Simpson. The money is to be used in the establishment and maintenance of ten free beds and also to assist in supporting the dispensary department.——The will of the late Sarah Reeves bequeaths $5,000 to the Episcopal Hospital for the endowment of a free bed, and $500 to the Home for Consumptives.——The will of the late John A. Brill provides the following bequests: $5,000 to the German Hospital, $3,000 to the Home for Incurables, $5,000 to the White Haven Sanitarium for Poor Consumptives.——Seventeen charitable institutions will eventually benefit by the will of the late Joseph Channon. Immediately following the death of his sister and aunt, his estate, amounting to $75,000, to be divided equally among the following institutions: Bethesda Children's Home, Chestnut Hill; Children's Hospital; Episcopal Hospital; Foster Home; German Hospital; Germantown Hospital; Germantown Relief Society; Orphans' Home and Asylum for Aged of Lutheran Church, Germantown; Masonic Home of Pennsylvania; Methodist Episcopal Home for the Aged; Methodist Episcopal Hospital; Methodist Episcopal Orphanage; Odd Fellows' Home, Tioga; Samaritan Hospital; Southern Home for Destitute Children; Woman's Hospital of Philadelphia, and Children's Homeopathic Hospital.

TENNESSEE.

Resolutions Regarding Dr. Maddin.—The Nashville Academy of Medicine, at its meeting April 28, adopted resolutions expressive of their sorrow at the death of Dr. Thomas L. Maddin.

Antituberculosis League.—The Bristol Antituberculosis League was organized April 30, with the following medical men among the officers: McMinn M. Pearson, first vice-president; and Dr. Arthur J. Edwards, treasurer.

Free Dispensary Established.—St. Luke's Free Dispensary has been established in South Chattanooga. The dispensary will be open from 12 to 2 in the afternoon. Nurses will be detailed for duty from Erlanger Hospital, and Dr. Raymond Wallace will be in charge of the institution.

Personal.—At a meeting of the Bristol-Sullivan County Society held recently, Dr. M. M. Butler was presented by the society with a gold-headed cane.——Dr. E. E. Reisman has been elected house surgeon of the Nashville State Hospital Board, vice Dr. Robert W. Grizzard, Jr., term expired.

Smallpox.—Nine houses in Dickson are under quarantine on account of the prevalence of smallpox.——Dr. F. B. Stapp, chief vaccination surgeon, Chattanooga, announces that unless the people of East Chattanooga show a more kindly spirit toward the vaccinators, smallpox is likely to become epidemic and quarantine will be declared against the infected section of the city.

Commencements.—The thirty-third annual commencement exercises of the Medical Department of Vanderbilt University, Nashville, were held May 1, when degrees were conferred on a class of 40. The faculty charge was delivered by Dr. Lucius E. Burch, and the honors were awarded by Dr. William L. Dudley, dean of the faculty.——The fifty-seventh annual commencement exercises of the Medical Department of the University of Nashville were held April 30, when a class of 67 was graduated. The faculty address was delivered by Dr. Larkin Smith.——At the annual commencement of the University of Tennessee, Nashville, held April 30, a class of 39 was graduated. The doctorate address was delivered by Dr. Hilliard Wood, and Hon. J. W. Judd delivered the address to the graduating class.—Meharry Medical College, Nashville, held its annual commencement exercises, April 11.——The Medical Department of the University of Chattanooga held its annual commencement exercises, April 27, when a class of 25 was graduated. The faculty address was delivered by Dr. George R. West, and the degrees were conferred by Rev. John Race, D.D., president of the university.——At the annual commencement exercises of the Memphis Hospital Medical College, held April 30, a class of 82 was graduated. Dr. B. N. Ward, Como, Miss., delivered the address to the graduating class, and Hon. William H. Carroll, president of the board of directors, conferred the degrees.——The second annual commencement exercises of the College of Physicians and Surgeons, Memphis, were held May 1, when a class of 15 was graduated. The commencement address was delivered by Prof. Junius Jordan, Pine Bluff, Ark., the degrees were conferred by Dr. Heber Jones, dean of the college, and the faculty address was delivered by Dr. R. S. Toombs.

WASHINGTON.

Wants Isolation Hospital.—The health commissioner of Seattle has asked an appropriation of $25,000 for the erection of an isolation hospital.

Tuberculosis Infected Houses to be Fumigated.—Dr. J. E. Creighton, health officer of Seattle, has ordered all houses in

which persons have lived who have had consumption, be fumigated before being occupied by other tenants.

Medical and Surgical Building.—Dr. E. M. Renninger, medical superintendent of the Alaska-Yukon-Pacific Exposition, has planned a medical and surgical building to cost $20,000 or more, in which exhibits shall be made showing the standing and advancement of the world in medical and surgical science.

Personal.—C. C. Mann, Spokane, and A. W. Burns, North Yakima, have been appointed members of the State Board of Dental Examiners.——Dr. Richard J. O'Shea has returned to Seattle after several months in Europe.——Dr. Thomas Tetreau, North Yakima, has succeeded Dr. Phillip Frank as health officer of Yakima County.

Vital Statistics.—During March the births reported in the state exceeded the deaths by 400. Chief among death causes were: Typhoid fever, 23; diphtheria, 26; scarlet fever, 4; measles and whooping cough, each 2; tuberculosis, 98; cancer, 40; cerebrospinali meningitis, 16; heart diseases, 59; pneumonia, 96; suicide, 18; homicide, 6; accidents, 75; nephritis, 50. ——During March there were 185 deaths in Seattle, an increase of 38 over the preceding month. The principal causes of death were: Diseases of the circulatory system, 29; tuberculosis, 26; pneumonia, 24; digestive diseases, 16; accidents, 14; nervous diseases, 15; diseases of early infancy, 13; and cancer, suicide and senility, each 5.

Work Against Plague.—Since the opening of the campaign against bubonic plague in Seattle last November, 35,894 rats have been killed and accounted for by the health authorities. Nearly as many have been killed by traps and poison by private individuals. During March 4,019 rats were delivered to the laboratory, of which 3,610 were examined postmortem. More than half of all the rats were brought in from the water front. From time to time rats brought in alive are searched for fleas. Thirty-five rats searched during the month yielded 127 fleas. During the month 18 ships were fumigated for the destruction of rats. One rat found March 25 was plague infected. This is the first infected rat found since January 7. Assistant Surgeon Chapin reports that on April 22 plague was positively determined in a rat found on the water front near the "old depot" and later, April 30, a second rat in which plague infection has been positively determined, was found in the same district.

WEST VIRGINIA.

Personal.—Dr. John E. Cannaday, former surgeon to the Reynolds Memorial Hospital, Glendale, has located in Charleston.——Dr. Cassius C. Hogg, Huntington, major and surgeon, West Virginia National Guard, has been made head of the medical department, vice Dr. H. Byron Baguley, deceased.——Dr. A. B. McEachen has resigned as interne at Cook Hospital, Fairmont, to become physician of the Fairmont Coal Company. Dr. M. J. Bartlett, formerly of Clarksburg, is his successor.

State Medical Society Meeting.—At the forty-first annual session of West Virginia State Medical Association, held in Clarksburg, May 13, 14 and 15, the following officers were elected: President, Dr. Fleming Howell, Clarksburg; president-elect, Dr. Vincent T. Churchman, Charleston; vice-presidents, Drs. Robert J. Reed, Wheeling, Rawley H. Powell, Grafton, and Henry D. Hatfield, Eckman; secretary, Dr. Thomas W. Moore, Huntington; treasurer, Dr. Timothy L. Barber, Charlestown; delegate to the American Medical Association, Dr. James G. Walden, Wheeling, and alternate, Dr. Orra F. Covert, Moundsville.

WISCONSIN.

Charged with Illegal Practice.—Niccola Janetta, Cumberland, was arrested and taken before Judge Kinsley at Barron, April 28, charged with practicing medicine without a license. He is said to have been convicted and fined $50 and costs, with the alternative of 60 days in jail. This individual is said to be a farmer who has suddenly turned healer, and in addition wards off witches and breaks spells of the "evil eye."——In the case of Dr. Henry A. Schmidt, Milwaukee, charged by the State Board of Medical Examiners with having obtained his certificate by misrepresentation, the judge is said to have directed a verdict in favor of the defendant, May 6.

Appropriation for Tuberculosis Exhibit.—The regents of the State University have appropriated $250 for an exhibit in connection with the state exhibit at the International Congress on Tuberculosis to be held in Washington. The exhibit will include models of buildings, dormitories and class rooms, showing methods of heating, lighting and ventilation as well as methods employed to prevent tuberculosis infection. Charts will be prepared showing the result of physical examination of students on entrance to the university with especial regard to diseases and weakness of the lungs. The exhibit will also include a demonstration of the work of the university extension division in the campaign against tuberculosis, and the methods employed by the department of bacteriology for disseminating information among the students concerning the cause and prevention of tuberculosis.

Society Meetings.—Jefferson County Medical Association, at its annual meeting, held in Jefferson, April 28, elected the following officers: President, Dr. George L. Smith, Jefferson; vice-president, Dr. Harlow O. Caswell, Fort Atkinson; secretary, Dr. Carl R. Feld, Watertown; and delegate to the state society, Dr. C. Howard Searle, Palmyra. The society has condemned the contract practice of some of its members and has given these members three months in which to sever their connection with lodges or associations for which they do an indefinite amount of work for a stipulated sum.——At the annual meeting of the Ninth Councilor District Medical Society, held in River Pines Sanatorium, below Fond du Lac, April 28, Dr. Frank A. Southwick, Stevens Point, was elected president, and Dr. J. Willis Rockwell, Grand Rapids, secretary.——At the annual meeting of Sauk County Medical Society, held recently in Reedsburg, the following officers were elected: President, Dr. Frank D. Hurlburt, Reedsburg; vice-president, Dr. D. I. Thompson, Reedsburg, and secretary-treasurer, Dr. Roger Cahoon, Baraboo.

GENERAL.

Hygienists Meet.—The American School Hygiene Association held its second Congress in Atlantic City, N. J., April 16-18. It was definitely decided that the policy of the association during the coming year should lead to the formation of several active committees to cover such work as the compilation of a bibliography on school hygiene; the formation of a conspectus of state and municipal laws relative to school hygiene; the accumulation of further statistics concerning medical inspection; and the publication of monthly bulletins on school hygiene. The following are the officers of the association: President, Dr. Henry P. Walcott, Cambridge; vice-president, Dr. Arthur T. Cabot, Boston; and secretary, Dr. Thomas A. Storey, Boston.

Society Meetings.—The fourth annual meeting of the National Association for the Study and Prevention of Tuberculosis will be held in the Auditorium Hotel, Chicago, June 5 and 6, under the presidency of Dr. Frank Billings, Chicago. The association is divided into sections clinical, climatological and surgical, with such topics for general discussion as "Sanitarium Secured, What Next?"; "Prevalence and Prevention of Tuberculosis in Charitable and Correction Institutions," and "Tuberculosis in Children."——The Northwestern Woman's Medical School Alumnæ Association will hold its annual meeting, June 2, at Lexington Hall, Chicago University, Lexington Avenue and Fifty-ninth Street, at 10:30 a. m. At 12:30 luncheon will be served at Lexington Hall, and in the afternoon Dr. Elizabeth Dunn will show the alumnæ through the university. Dr. Anna Ross Lapham, 260 Bowen Avenue, is secretary of the association.

CANADA.

Contagious Diseases.—During January, February, March and April there were 196 cases of diphtheria, 285 of scarlet fever, 114 of typhoid, 289 of measles, 35 of chickenpox, 260 of whooping cough, 358 of tuberculosis, 46 of erysipelas, 107 of mumps, 91 of scabies, and 10 of spinal meningitis.

Personal.—Dr. J. J. MacKenzie, Toronto, will spend the next three months abroad.——Two prominent practitioners of Sherbrooke, Que., are contesting that constituency in the Quebec elections—Dr. Joseph P. Pelletier, liberal, and Dr. J. Oliviet Camirand, conservative.——Dr. Charles Sheard, medical health officer of Toronto, is inspecting the water facilities of Philadelphia, New York, Boston and Albany.

The Tuberculous Immigrant in Canada.—Dr. P. H. Bryce, chief medical officer of the inland revenue department, Ottawa, states that 59 tuberculous immigrants admitted into Canada in the past two years have been deported. He classifies these as follows: Evidently tuberculized on admission into Canada, 25; probably, 17; not, 15; no particulars, one; died in hospital, one. Speaking of all deportations, he states that 400 were made on account of disease during the eight months ended November, 1907, in a total of 181,784, as compared with 925 for the same reason in a total of 1,286,000 who entered the United States during the past fiscal year. Under the Canadian immigration act any immigrant who becomes a charge in any public institution in Canada within three years after

landing may be deported. Sixteen were debarred on account of tuberculosis at the seaports and were not admitted into Canada.

Hospital News.—The recent appointments to the Muskoka Sanatoria medical staff are as follows. Dr. W. B. Kendall, physician-in-chief to the Muskoka Cottage Sanatorium and the Muskoka Free Hospital for Consumptives; Dr. Charles D. Parfitt, physician-in-chief to the Free Hospital since its opening in 1902, becomes resident consultant to the two sanatoria, each giving his entire time and effort to these institutions. The medical staff includes a trained resident pathologist and two assistant doctors, together with a staff of specially trained nurses.——To the Royal Alexandra Hospital for Contagious Diseases, Montreal, there were admitted during April, 7 cases of diphtheria, 36 of scarlet fever, and 6 of erysipelas. Five scarlet fever and two diphtheria patients died. The total admissions for this year up to May 1 were 179, with 24 deaths. ——Dr. C. K. Clarke, superintendent of the Toronto Provincial Hospital for the Insane, criticises severely the immigration system of the Canadian government, and says that of the 200 admissions to the institution he supervises during 1907, 120 were foreigners, and the greater part of these were recent arrivals. The cost for maintaining those who could not be deported would be for the Toronto institution alone, $300,000.

FOREIGN.

New Hospital for Glasgow, Scotland.—The Glasgow Maternity and Women's Hospital was formally opened during the first week in May.

Plague in Ecuador.—It is estimated that since February 9, the date on which the first case of plague was recognized, there have been more than 450 cases, with over 200 deaths. The special sanitary commission has taken over the lazaretto formerly used for yellow-fever patients and has purchased another building which is well adapted for plague cases. Two additional pavilions for plague cases and a separate pavilion for smallpox cases are being erected. In *Public Health Reports* for May 15, Dr. Lloyd of the United States Public Health and Marine-Hospital Service gives the details of the work being done in preventing the spread of the disease and in the treatment of cases. He states that the experience with Yersin's serum is satisfactory when the serum is used in the beginning of an attack; after three or four days the serum is almost useless.

Plague in Venezuela.—A number of cases of bubonic plague have occurred at La Guayra, Venezuela, and vessels from this port are not allowed free entry to German and a number of other ports. Cable despatches relate that Dr. G. Peraza, who first differentiated the numerous cases of sickness as bubonic plague, was arrested and taken to the Caracas jail for making such a statement. A sanitary officer was sent from Caracas to investigate, and he reported the epidemic disease not to be plague. People continued to die mysteriously, however, and plague was at last admitted. President Castro ordered the place quarantined and released Peraza, while isolation of the plague victims was commenced on a systematic scale and the city is receiving a general cleaning up. Peraza was met at the station by a crowd and borne to his home on the shoulders of the multitude. The U. S. Consul at La Guayra, T. P. Moffat, reported early in April the prevalence of a suspicious disease.

LONDON LETTER.

(From Our Regular Correspondent.)

LONDON, May 2, 1908.

Prosecution of a Quack.

As stated in THE JOURNAL, March 14, p. 889, the authorities in Great Britain are beginning to abandon the supine attitude which has so long permitted quacks to defraud the public. In the case there reported, damages were for the first time recovered against a quack for fraudulent misrepresentation. Another case has now occurred in which a quack has been arrested and prosecuted at Exeter. This man announces himself as "The Great American Doctor, Professor Mortimer (Berkeley College, Boston, U. S. A.)." He defrauded a number of poor people of sums varying from $6 to $40. On account of the maladies from which they were suffering they were ready to listen to any one who promised relief. "He had devoted a lifetime to the study of every disease that afflicts humanity and equipped himself with every modern appliance for the diagnosing of every disease in existence." He laid out a table with all sorts of surgical instruments, and in a few days patients began to pour in. He adopted the same method in dealing with them all: first alarming them about their condition, then assuring them that he would cure them. He had the audacity to claim that a well-known Exeter doctor, Dr. J. Mortimer, was his son. He asked what were large sums for the poor who consulted him and then reduced the price, but in all cases insisted on a cash transaction. Many of the patients borrowed money in order to pay him, and were reduced to great straits in consequence. The case was adjourned to enable the prisoner to produce evidence for his defense, failing which the recorder announced that he would commit him for trial at the assizes.

Scottish Births the Lowest on Record.

The annual report of the registrar-general for Scotland for 1907, which has just been issued, shows a further marked decline in the birth rate. The birth rate per 1,000 of the population has declined as follows: 1897, 30; 1899, 29.8; 1901, 29.5; 1903, 29.2; 1905, 28.1; 1907, 26.9. The last is the lowest on record. While the population of Scotland had increased in 1907 from 4,300,000 in 1897, by nearly half a million, the number of births in the year had actually decreased.

The Research Defense Society.

The Research Defense Society, which was formed in January for the purpose of combating the antivivisection propaganda, has made great progress. It already numbers more than 800 members, and comprises not only eminent medical men and scientists, but also well-known persons in all departments of public life. Among the vice-presidents are the Duke of Abercorn, Lord Avebury, the Marquis of Bath, five bishops and four deans. Among names eminent in medicine are Sir T. Clifford Allbutt, Sir James Crichton-Browne, Professor Osler, Sir Thomas Smith, Sir Frederick Treves, Sir John Batty Tuke and Sir Samuel Wilks. Among eminent scientists are Prof. Francis Darwin, Sir George Darwin, Sir Joseph Hooker, Sir William Huggins, Sir E. Ray Lankester, Sir Norman Lockyer and Sir Henry Roscoe. The honorary secretary is Mr. Stephen Paget, who has written an excellent book in defense of vivisection. The president is Lord Cromer, who achieved fame as a great administrator while governor of Egypt. The society is the first organized attempt to deal with the question of vivisection from the standpoint of its bearing on public health and welfare; and to bring home to the popular understanding the real nature of experimental research, the benefits which it has conferred not only on man, but on the lower animals, and the still greater benefits which it will bring in the future. The society will make it clear that medical men who employ vivisection are not less humane than the rest of their countrymen. The society will give information to all inquirers, issue articles and leaflets, send out speakers and lecturers, and carefully examine the truth of the statements made from time to time in the speeches and writings of antivivisectionists.

A Middle-Class Hospital.

A new departure in the way of hospitals has been made by the foundation of the National Eye Hospital for the benefit of the middle class—for those people who can not afford to pay the high fees of a specialist and yet do not wish to avail themselves of hospital charity. Hitherto there has been no half-way house for people of limited means who wish to consult an oculist. There was either the free hospital for the very poor or a fee of $10 for the specialist. At this hospital patients will be treated for a uniform fee of $2.50. They may undergo an operation for cataract or any serious eye disease for $50 or $75, instead of the usual fee of $125 or $500. The hospital has been organized by a committee of city merchants interested in the scheme. It is not run for profit, though it is hoped that it will become self-supporting.

Cancer Research in the Colonies.

An interesting government paper has been issued on "Cancer Research in the Colonies." Lord Elgin, secretary for the colonies, drew the attention of British colonies and protectorates to the importance of the investigation of cancer being on a uniform basis. Great interest attached to investigating the occurrence of cancer in widely separated geographical areas and in different races, in accordance with a uniform plan and over a prolonged period. The valuable information already provided by British colonies has attracted the attention of authorities in foreign countries who have unanimously emphasized its importance. The committee again direct attention to the importance of microscopic examination of tumors. Investigations lately conducted in England, Scotland and Ireland have shown that even with the great facilities enjoyed at home, almost 40 per cent. of the less advanced cases of internal cancer and many external cases are not recognized in hospitals from clinical symptoms alone.

Therapeutics

[It is the purpose of this department to outline an up-to-date management of disease, to suggest scientific treatment for diseased conditions, and to present prescriptions that are simple, useful and palatable. Prescriptions are written in both the metric and apothecaries' systems, but the amounts of the ingredients are NOT exact translations of one system into the other, but quantities convenient for pharmacist and physician. It should be understood that solids are weighed in grams or fractions of grams, while liquids are measured in cubic centimeters; that a teaspoon holds five cubic centimeters, i. e., more than a fluid dram, hence a 100 cubic centimeter preparation will contain twenty doses.]

Chronic Alcoholism and Its Treatment.

Before discussing this condition and the success and non-success of its treatment, we should separate the alcohol habit from dipsomania, briefly consider the hereditary tendency to the desire for alcohol, both the physical and mental craving for the stimulant or narcotic (for alcohol is taken for both purposes), and then discover, if possible, what drugs or treatment it is that cures the patients, who are cured, of this habit.

Chronic alcoholism may be defined as the condition caused by the continued use of alcohol. The patient may take it frequently to excess and become actually intoxicated or stupefied by it, but except possibly during the periods when acute indigestion has been caused by it, alcohol in some form is more or less continuously and daily taken. Chronic alcoholism may also be defined as a more or less frequent consumption of considerable amounts of alcohol, with short periods of intermittency. This latter method of taking alcohol generally means excessive amounts.

On the other hand, dipsomania, while literally meaning a state of "frenzied thirst," is used to describe a condition of periodic craving for alcohol, satisfied only by enormous amounts which for some hours or even days may be tolerated without complete intoxication. These periods of craving may be so long separated as to occur but a few times during a year, or but once a year, and sometimes even longer. They last from a few days to two or three weeks. In the meanwhile the patient may take no alcohol at all nor have any particular desire for it. The instigator of an attack may vary. Sometimes it is a taste of alcohol, or the observation of others drinking, and again it may occur as a nervous explosion similar in its lack of control to an epileptic attack, and not infrequently there is a prodromal period of depression, restlessness or anxiety. At such periods nothing but restraint will prevent the patient from taking enormous quantities of alcohol, and this is usually accompanied by a more or less complete lapse of physical and moral cleanliness. He can not reason, and is really suffering from a species of temporary insanity.

It is obvious, therefore, that the two conditions, chronic alcoholism and dipsomania, can not be treated in the same way, and should not even be considered as allied. One is a confirmed drug habit with all the pharmacologic actions, degenerations and deteriorations that go with the continuous ingestion of large amounts of alcohol, while the other is an unexplained disease or condition of the nervous system due to some periodic irritation creating a desire that experience or hereditary intuitive knowledge has taught can be satisfied with alcohol.

That there is an hereditary predisposition to the almost uncontrollable desire for alcohol can not be doubted. It is not the purpose of this article to discuss the action of alcohol on the brain cells, as to the combinations or dissolutions that it may cause in the substance of the brain cells, or the deterioration that it may cause of the germ cells in alcoholic parents, but certain it is that children born of parents addicted to the overuse of alcohol have given them a heritage of impaired resistance against certain diseases, notably tuberculosis, and have handed down to them a craving, or at least a tendency to the desire, for stimulation. This desire for excitement may show itself in the neurotic disposition with all its imagery of higher life and aspirations, or its opposite, the horrors of the depths of despondency; in either case the patient getting an increased cerebral stimulation out of the exalted or depressed condition he allows himself to take on. Again these subjects while undergoing such pain as the ordinary individual ordinarily withstands, have such an exaggerated appreciation of their suffering that they demand and acquire some drug that will appease it. Little by little they acquire a habit for the drug which they have found most satisfactory, and it depends on the environment and the sex of the patient as to how often alcohol will be the drug selected. If these patients are frequently despondent, after having once found that alcohol soothes them or exalts them to a more contented state, then the alcohol habit easily follows. Many patients are unaware of this hereditary taint until a few social gatherings with the free use of alcohol have suddenly developed a liking and a craving for it that they could not have foretold. Some of these patients with aid—medical, lay, or through their own mental force—may stop the use of a drug but only to take up another, for some drug habit is sure to be continued. Sometimes the patient finds that one drug is not satisfactory or has lost its ability to stimulate, and then takes a stronger drug. It is much harder to cure of the alcohol habit a patient who has inherited the tendency than a patient who was born of parents not so tainted. Just what represents this easily awakened desire of the patient who has an alcoholic inheritance we do not know, but it seems most probable that the "centers" for the highest brain functions (will and self-control being the last to develop and consequently the first to be impaired in any process of retrogression) are more or less insufficiently developed in the man with an hereditary alcoholic tendency.

If this is true, then, when such an one having personally learned the exhilaration or indifference that alcohol produces and enjoying it, has the desire to repeat the sensation, he has no will or even inclination to withstand the desire and consequently reaches for and takes his alcohol.

Having taken it and gained the desired mental condition, he has by the alcohol taken damaged his higher centers a little more, and left them a little less equal to exercise their function of control. Repetition of desire and the results of acquiescence to it finally almost abolish the functions we call "will" and "self-control" and confirmed alcoholism is established.

This reasoning presupposes that the hereditary alcoholic enjoys the mental condition that alcohol gives him, and it requires but little consideration to see that this must be true. The lower down the scale of development we go, the more we see enjoyed the animal passions, the freedom from restraint, and the removal of this exercise of restraint. Alcohol inhibits this restraint and allows full sway of the animal passions.

If we analyze the desire or craving of the alcohol habitué we find that there are at least three elements: 1, The action which the alcohol has on the throat and stomach; 2, the action on the circulation, and, 3, the action on the brain. Most patients who crave alcohol take it stronger and stronger and less and less diluted. In other words, we may say they are normally whisky and brandy drinkers; abnormally drinkers of one of the other strong liquors or alcohols. This desire for a burning, warming sensation in the throat, gullet and stomach is real, for so far as the throat is concerned it is often simulated by the urgent desire of cigarette inhalers for another smoke, and part of the cigarette desire is certainly located in the throat. Also, it has been many times found that some irritant, biting substance like capsicum taken into the stomach has stopped this local craving for strong alcohol. It is quite possible, and perhaps probable, as seen in other organs

of the body, that any periodic or intermittent stimulation that the organ receives soon causes it to have a periodic desire or habit for that stimulation, hence, one desire, probably the least one, for strong alcohol.

The next most urgent desire for alcohol comes from the circulation. Those who have the alcohol habit get less cardiac stimulation or reflex stimulation out of alcohol than one who is not accustomed to it. Consequently, this is not the stimulation that they desire, but it is in all probability the dilatation of the peripheral blood vessels. In other words, a patient used to a constantly repeated vasodilator as alcohol, if for any reason is deprived of it or has the period of intermittency prolonged, has more or less contraction of the surface vessels; consequently more congestion of the internal organs and with these the brain. With this condition there is more or less restlessness, nervousness, and voluntary and involuntary muscular twitching, perhaps largely due to disturbances of nerve centers, but all helped by a non-intoxicating and by a non-narcotic dose of alcohol, and even sometimes by a small dose of alcohol, showing that it is not entirely the effect on the nerve centers that is desired, but the effect of equalizing the circulation, relieving the congestion of the internal organs, and often relieving the heart by dilating the peripheral blood vessels. The moment that such patients feel the peripheral flushing and warming from alcohol, that moment their nervous excitation and restlessness cease. The enormous effect of chronic alcoholism on the peripheral vessels is well understood and is often evidenced by the condition of the nose and face where the blood vessels are near the surface and readily show dilatation. It has also been noted that where there is craving for alcohol from this circulatory reason nitroglycerin can at times be substituted and the craving postponed or diminished. Consequently, many times the amount of alcohol that the patient takes can be greatly reduced without uncontrollable craving if nitroglycerin is gradually substituted.

The third cause for the craving for alcohol proceeds from the central nervous system. Whether this is an actual craving of the brain cells for a stimulant or a narcotic (they having become used to such stimulation) much as the cry of the body cells for water creates both subjective and objective thirst, can not be determined. It is also perhaps difficult to decide whether this craving is a chemical need caused by an acquired habit of the brain cells, or whether it is an exaggerated psychologic desire first instigated by the physical craving above described and exaggerated by the individual who is suffering from the alcohol habit, the patient interpreting his psychologic craving as a real physical need. It is certainly difficult to decide how much of the craving for the drug is due to the need for that drug or to the enslaving psychologic need for the repetition of the confirmed habit; in other words, mental craving. It is also difficult to decide which the patient or the brain cells desire the most, stimulation or dulling of their sensibilities. Certain it is that patients craving alcohol or any other drug are in a condition of hyperexcitation, and the acquisition of the drug quiets them down to a normal condition. Consequently, in these instances of the confirmed drug habit we must consider that the action of the drug is to quiet; in other words, it is a narcotic to the central nervous system. On the other hand, many a patient while acquiring a drug habit gets such a nervous stimulation from it that he can mentally do much better work, and the drug thus acts in him as a stimulant. Again, this "stimulation" is really perhaps fallacious, as it is often hypersensibility or irritability, worries, frets or actual physical pain that prevents him from doing his best mental work. The narcotic effect, then, of the quieting drug puts him in a psychologic condition that enables him to do better mental work; hence, even in these instances the drug really acts as a narcotic.

Let us now for a moment consider the ability of alcohol to satisfy these many conditions described. In the first place, a little of it before meals, or with the meals, stimulates the appetite, and, if not in large amount, aids digestion. A debilitated or tired-out man feels better and improves. Also, when there is poor peripheral circulation, cold extremities, and increased cerebral tension from too much blood pressure in the brain, alcohol will dilate the peripheral circulation and relieve this tension. An anemic, weak, overworked man or woman with breathless turns and periods of exhaustion may relieve that feeling with alcohol, the circulation starting up, the heart being slightly stimulated, and the condition becoming improved. If the patient has chronic pain or recurring pain which is not too acute, alcohol will stop it or dull it, both by its actual narcotic effect and by relieving the localized congestion by dilating the general circulation, and in this instance the patient feels better. In worries, frets and actual brain fag the stimulation from alcohol of a healthy circulation through the brain with a reduction of the increased blood pressure, with the slight mental indifference which alcohol causes, makes the condition of the patient seem to himself more to be tolerated. Also, there is the actual narcotic action of alcohol on the brain cells, slight in amount probably with small doses, more and more intense with larger doses, that becomes, perhaps, with the constant repetition of the habit, a temporary necessity at least for the cells to receive this quietus to stop this intermittent exaggerated irritability when deprived of alcohol.

Any one or all of the above reasons may become the cause or causes of the acquisition of the alcohol habit. The patient (and he has now become a patient) can not eat unless he has a drink; his circulation is not good unless he has an alcohol dilator; his brain does not work unless he has an alcohol sedative; his muscles do not work coordinately unless alcohol controls the nerve cell irritability. Suddenly deprive him of his alcohol and cerebral irritation reaches the point of delirium, the heart becomes rapid and irregular and the circulation fails.

Excessive amounts of alcohol tolerated for a longer or shorter period will do one of two things: either cause such a profound chemical effect on the brain cells and nervous centers as to produce coma and perhaps paresis; or, by accumulating in the blood due to the inability of the excretory organs to get rid of it, cause meningeal irritation and, therefore, delirium. It can thus be seen that a man with delirium tremens from excessive use of alcohol, when he has excreted by medical aid this excess, may again have delirium from the need of the cerebral cells for their narcotic. The treatment at first must be aimed at excretion. The treatment of the subsequent condition is to give the cerebral cells what they need in gradually diminishing amounts, or to substitute some other narcotic which will satisfy their desire. Of course, in the beginning of the treatment of delirium tremens while the excretion is being aided, it may be necessary from the violence of delirium to administer strong narcotics. This primary delirium is probably meningeal irritation. The secondary delirium is probably the same as seen in the sudden deprivation of an alcoholic of his alcohol, and is due to the irritation of the cerebral cells. This is similar to the nervous irritations seen in withdrawing the drug in any other drug habit.

The deduction from all this preamble is that in chronic alcoholism there is an intense physical desire to combat, yet also a psychologic element of nerve habit which can only be overcome by nervous control. In other words, as the alcoholic's physical desires are increased to the point of frenzy by his mental interpretation of such desires, so can no "cure" be successful without his mental belief that he is improving and can be cured. Hence, no cure has been or can be successful that does not treat the mind of the patient—that is not suggestive. There is probably no lauded or asserted treatment to cure the condition of chronic alcoholism that has not had some successes. There is also no treatment that has not and will not

have relapses. It is probable that just as many patients have been cured by the simple signing of the pledge as are cured by any other treatment. This certainly was true in the past. In the present very practical age, when a man must see something done, or have something done, or do something tangible before he will exert his mental powers to control his habit, the mere signing of pledges is less successful. The man must take some treatment that has a name to it, or go to some institution and have something done, or do something that makes more frequent impressions on his mind, i. e., to suggest repeatedly to him that he is being cured.

These assertions, then, presuppose what seems to be the absolute fact, that there is no known specific for the treatment of chronic alcoholism. In other words, there is no known drug or any combination of drugs that will cure alcoholism. From time immemorial it has always been known and always been recognized that the taking of a drug or preparation, the ingredients of which the patient did not know, caused more mental cooperation of the patient than the taking of a drug which he did know; consequently the ability of many lauded nostrums to cure the alcohol habit. And even the physician administering a nostrum owned by some firm or corporation carries with it the mental hopefulness of the physician to stimulate the mental hopefulness of the patient. Also, the individuality of the physician who administers or conducts the treatment, or the individuality of the minister who compels a man to sign the pledge is perhaps the most important factor in the cure. As just stated, however, this individuality or the administration of something to the patient the ingredients of which he does not know, or the application of some physical treatment to the patient must be repeated frequently to obtain the best suggestive results. Institution treatment of alcoholics is the only treatment that can succeed when the patient's mental ability has so deteriorated that the stimulation of such suggestion and the stimulus of such individuality can not control him. There is no drug and no treatment known that can give him that mental stimulus if he has not the ability to evolve it. It is many times perfectly true that the ordinary mental stimulation that a physician is able to give a patient by any method which he may inaugurate will not touch the psychologic keynote in the individual which can be touched and often later is touched by some pseudopsychopathic treatment. Therefore, Christian science or any other mental suggestive treatment may in individual cases so start healthy cellular vibrations in the brain of the chronic alcoholic that he controls his desires and becomes cured of his habit.

It is hardly necessary to enumerate the number of "cures" that have been lauded for chronic alcoholism. Those at present most in evidence are the Keeley "cure" and the Oppenheimer "cure." It is needless to say that neither of these methods has concealed in the medical treatment any wonderful discovery. The valuable gold cure contains no gold, and what is more, never did. And the promoters of this fraudulent term "gold cure" soon found that to be successful the patient must be frequently seen by the physician treating him, or better, be treated at an institution, and that he must be interested in some physical thing done or medicine taken, so many times in twenty-four hours; that is, repeated suggestive impressions to the mind while the physical needs of the man are being attended to.

The Oppenheimer cure, now thrown open they declare to any physician wishing to buy the medicine, analysis of which they pretend to mail to the physician and make public, shows a mixture of drugs the properties of which are perfectly well known, but the tonic and quieting efficacy of which are clouded to the physician using the treatment by one or two other supposedly newly discovered alkaloids or active principles of unimportant drugs. The physician administering the treatment thus believes it is this unknown quantity that is efficacious, and the patient must come frequently to the physician's office, two or three times a day, for his medical treatment and his mental suggestion of improvement, and the results are many times successful.

The advantage of doing something physical has been aided by the use of the hypodermic syringe, so that some institutions administer drugs frequently by the hypodermic method, or even may often give pure water hypodermatically with the suggestion that the patient will be improved by it. Various electrical, massage, exercise and eliminative treatments all, of course, have their use in improving the physical condition of the patient and, therefore, his mental ability to fight his habit, and are all more or less taken advantage of in the institutional treatment of the alcohol habit.

To come down to a concrete treatment. The physician must in the first place honestly decide if he has the mental forcefulness to take charge of patients suffering from the alcohol habit, and out of a given number of physicians but a small percentage will find that they possess that power. In other words, few have such a forcefulness as will carry mentally one or more patients suffering from the alcohol habit for a continued length of time. After this each patient should be individualized, and it is rare that any one patient can be treated like any other patient in this as in any other condition. If the patient's surroundings and his mental ability to control himself with the physician's help are far below par, nothing but institutional treatment will be successful. Whether or not the alcohol shall be withdrawn rapidly or slowly depends on the physicial condition and on the intensity of the nervous desire. Whether capsicum or some other irritant shall be given before meals for digestive stimulation (remembering that all tinctures contain alcohol), or whether nitroglycerin as a dilator will prevent, in the individual patient, the circulatory craving, or whether strychnin will steady or overstimulate irritable nerves and nerve cells, must all be decided by the physician who studies the individual patient. Whether bromids or chloral, or a temporary coal-tar cerebral sedative is advisable must also be decided by the individual physician for the individual patient. But whatever medicinal treatment is instituted, physical treatment should also be inaugurated, and most important of all, as just stated, is the frequent mental aid given by the physician to the patient, and perhaps in no better manner furthered than by his personal administration to the patient of the drugs needed, or the placebos instituted.

Pharmacology

THE BROADER AIMS OF THE COUNCIL ON PHARMACY AND CHEMISTRY.

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(*Continued from page 1621.*)

IX. THE SEED THAT FELL ON STONY GROUND.

The tabulation of the proprietary advertisements in prominent medical journals, to which I referred recently,[1] contains a mine of highly suggestive information. As an instance of this, there is the interesting fact, that of the nearly 200 products thus advertised, only thirty, or just about *one-sixth*, had been admitted by the Council. It is very evident that the labors of the Council have been absolutely fruitless so far as these journals are concerned. If they practice any discrimination whatever, it must be against the decent products. Nor do these journals stand alone—by comparing the advertising pages with the list of admitted products, which is published

1. THE JOURNAL, May 9, 1908, p. 1540.

monthly by the Council, it is very easy to ascertain the stand which any journal takes in this matter.

What is the real reason for this negative attitude? It sounds very grand, no doubt, when medical editors, with their hands on their hearts, proclaim that they "cherish their independence too much to follow blindly the lead of any set of men—self-styled chemists, druggists, laboratory moles, uncrowned czars, etc."—very grand, but is it not just a little beside the question? Does anyone ask them to "follow blindly"? The rules of the Council have been given the widest publicity, and are very easily accessible. If the editors remain blind, if they are not acquainted with these rules, whose is the fault? If they deem any of these rules vicious why do they not present evidence to show in what the viciousness lies? If they agree with the rules, do they believe themselves more competent than the Council to apply them? Will they take the trouble to investigate personally the status of every product which they advertise? I wish them joy in the undertaking. Perhaps they would have us believe that they have done so already, and are honestly convinced that they are advertising only honest products? Then let them ponder over the following list of articles which have been publicly exposed by the Council, and which occupy prominent space in the advertising pages of these and many other journals:

Pepto-Mangan (*Gude*) (1, 2, 3, 4, 5*): Guilty of misquoting reports (see THE JOURNAL, Sept. 23, 1906, p. 934; Oct. 7, 1906, p. 1099; April 6, 1907, p. 1197).

Tyree's Antiseptic Powder (1, 2, 3, 4, 5): Guilty of advertising a fake formula (see THE JOURNAL, Oct. 20, 1906, p. 1316; May 18, 1907, p. 1692).

Antikamnia (1, 2, 5): Guilty of—what not? (see THE JOURNAL, June 3, 1905, p. 1790; July 1, 1905, p. 55; Jan. 26, 1907, p. 340; Feb. 8, 1908, p. 467).

Campho-Phenique (1, 2, 3, 4, 5): False formula (see THE JOURNAL, April 20, 1907, p. 1365).

Kutnow's Powder (1): Advertised in the newspapers (see THE JOURNAL, Oct. 21, 1905).

Lactopeptine (1, 2, 4, 5): The psychic digestant (see THE JOURNAL, Feb. 2, 1907, p. 434; Feb. 9, 1907, p. 533; March 16, 1907, p. 959).

Pancrobilin or *Protonuclein* (1, 2, 4, 5): The physiologic mysteries (see THE JOURNAL, vol. 49, 1907, p. 1198).

Phenalgin and *Ammonol* (1, 2, 4, 5): The rival chemical hybrids (see THE JOURNAL, June 3, 1905, p. 1790; Jan. 27, 1906, p. 290).

Hagee's Cordial (1, 2, 3, 5): "Every beneficial constituent of cod liver oil"—except the oil (see THE JOURNAL, Oct. 13, 1906, p. 1207).

Cactina Pillets (1, 2, 4, 5): The psychic heart tonic (see THE JOURNAL, Sept. 21, 1907, p. 1021; March 21, 1908, p. 956).

Listerine (1, 2, 3, 5): The bargain-counter antiseptic.

Anasarcin and Anedemin (1, 3, 4, 5): The twin "inventions" (see THE JOURNAL, May 4 and 11, 1907, pp. 1535 and 1641).

Calcidin (2, 4): The drug that surpasses itself (see THE JOURNAL, Sept. 7, 1907, p. 866).

Thialion (3): Another "synthetic" mixture of wondrous graphic formula (see THE JOURNAL, Nov. 3, 1906, p. 1500).

Oxychlorine (5): Ditto, ditto (see THE JOURNAL, July 6, 1907, p. 54).

With this list as the sole article of evidence, I am willing to leave the question of the relative competency of the editors and the Council to judge the honesty of proprietary products, to any jury of unprejudiced men—even without any stipulation as to their intelligence. But you, as members of the medical profession are confronted with the necessity for something more than a mere verdict—you are jury, judge and executioner in one. Are you content with this state of affairs? Are you willing to perpetuate these frauds? Perhaps you answer that you do not take your journals for the advertisements, that you do not even look at these—perhaps not, but *somebody* does, and is influenced by them, or good money would not be spent on them. *You* are doing your best to make dishonest advertising possible; *you* are helping with all your might to disseminate it. A pleasant thought, is it not? Do not place all the blame on the editors, or even on the publishing houses—they depend on *you*, they must and will give you just what you want, and withhold what you do not want—*if* only you make your wishes known with sufficient emphasis. With you, the active practitioners throughout the land, lies the responsibility for the continuation of fraudulent proprietary medicines. You can not shift it, you can not escape it.

I am not suggesting a wholesale destructive campaign against advertising in medical journals—but I *would* like to see a general constructive campaign for high and clean standards in medical journalism. Such a campaign *should* be started voluntarily by the editors of the journals themselves. They should aim for true independence of thought and conscience—not the pretended independence which is tied about with purse-strings. If they can attain to this independence they will enter into this movement, not indeed as blind followers, but as loyal leaders. If they can not attain to this independence, their days of usefulness are past. A journal which is in any way dishonest with its subscribers is not worth having, and the editors should be made aware of the fact; not by society resolutions, but directly by their subscribers. I have heard it said that business men have a fine contempt for "resolutions;" it is what the individual subscribers feel and think, say and do, that counts.

(To be continued.)

*Numbers in parentheses refer to the journal in which the advertisements appeared: 1, Medical Record; 2, Chicago Medical Recorder; 3, Therapeutic Gazette; 4, Interstate Medical Journal; 5, New York Medical Journal.

[CONTRIBUTION FROM THE CHEMICAL LABORATORY OF THE AMERICAN MEDICAL ASSOCIATION.]

ZYME-OID.

W. A. Puckner and W. S. Hilpert.

Zyme-oid, manufactured by the Oxychlorine Chemical Company of Chicago, is advertised as "a powerful gastrointestinal antiferment" which will "arrest and prevent bacterial fermentation in any portion of the intestinal tract, whether the media be acid or alkaline." These extravagant statements, like many others made regarding the properties of zyme-oid, are very similar in character to those made in the circulars accompanying the preparation oxychlorine, manufactured by the same firm and exposed in THE JOURNAL, July 6, 1907, page 54.

As examples, several parallel statements help to show this similarity. The formula (?) of oxychlorine, as expounded on the label, is given in full, while in the case of zyme-oid only a hint is given as to its composition, but still sufficient to point to a similarity between the two:

OXYCHLORINE.	ZYME-OID.
"Oxychlorine is a tetraborate of sodium and potassium combined with oxychlorid of boron, thus: $(6NaKB_4O_7)BOCl_3$."	"Zyme-oid is a double borate salt."

In the matter of claims for chemical stability the two seem to be very closely allied:

Oxychlorine is "a stable salt under all conditions until brought in contact with sub-oxygenated organic matter."	Zyme-oid is "a product which is stable enough for keeping purposes, but which readily yields nascent oxygen in the presence of bacterial products."

The therapeutic properties attributed to these sister products are even more similar, for we find that:

"Oxychlorine is adapted to all morbid and abnormal fermentative alimentary states."	"Zyme-oid is a powerful gastrointestinal antiferment."

Many more statements and claims could be quoted to show a similarity between, amounting almost to an identity of, oxychlorine and zyme-oid

With these facts in mind, the analysis[1] of zyme-oid was undertaken in order to compare it with the previously examined oxychlorine and to determine to what extent the claims made for zyme-oid are upheld by its composition. The analysis indicated, as was expected, that zyme-oid is essentially the same as oxychlorine as is shown in the following, quoted from the report of the analysis of each:

ANALYSIS OF OXYCHLORINE.		ANALYSIS OF ZYME-OID.	
Potassium (K)	12.26	Potassium (K)	13.50
Sodium (Na)	8.20	Sodium (Na)	9.84
Chlorate (ClO_3)	25.32	Chlorate (ClO_3)	27.53
Nitrate (NO_3)	21.70	Nitrate (NO_3)	24.22
Boric acid anhydrid (B_2O_3)	18.63	Boric acid anhydrid (B_2O_3)	13.42
Water, calculated	13.29	Water, calculated	10.42

Assuming that the chlorate in zyme-oid is present as potassium chlorate and the nitrate is present as sodium nitrate, the figures obtained by analysis correspond to a mixture approximately as follows:

Potassium chlorate ($KClO_3$)	40.43
Sodium Nitrate ($NaNO_3$)	33.22
Potassium tetraborate ($K_2B_4O_7$)	1.60
Sodium tetraborate ($Na_2B_4O_7$)	3.31
Boric acid	21.14

From the results of the analysis and from the physical properties of zyme-oid we conclude, just as was done in the case of oxychlorine, that the preparation is not a definite chemical compound, but is essentially a mixture of alkali chlorate and nitrate with boric acid, probably produced by fusing together the constituents.

COMMENT.

An examination of the claims made for the firm's two products, while, as already proved, disclosing many points of similarity, will also show one remarkable difference. We refer to the skilful indefiniteness that pervades the claims made for zyme-oid and which defies scientific refutation. This verbal obscurity is becoming daily more common in the "literature" of firms marketing nostrums. Since the Council has analyzed many of the much advertised articles and proved the unreliability of the pseudo-scientific claims made for them, the more cautious of the nostrum-mongers have modified the matter descriptive of their products. They have called to their aid the principle that words were given to man to conceal thought rather than to express it, and they have reduced equivocation to a fine art. Wherever it was possible to put forward claims by implication rather than by expression this has been done.

To substantiate further the claims made by the manufacturers of zyme-oid for their product, a laboratory report is brought in evidence. This report, which is written more in the style of a peruna testimonial than that of a conservative scientific statement, fails to verify the claim that zyme-oid is a "double borate salt," but confines itself to a statement of its harmlessness and its anti-fermentative properties. In passing, it seems regrettable that scientific laboratories should, for a pecuniary consideration, be willing to jeopardize their reputations by lending their names to the furtherance of nostrum exploitation. The results of the examination of zyme-oid demonstrate that the product is no more worthy of the physician's consideration than its close, and equally worthless, relative oxychlorine.

1. ANALYSIS OF ZYME-OID.—Zyme-oid as purchased in the open market is a white granular product devoid of odor, soluble in water, and having a salty taste. The aqueous solution responds to tests for hydrogen, sodium, potassium, chlorate, nitrate and borate ions, the proportions of which were determined quantitatively.

In order to determine sodium and potassium by the sulphate method, all other interfering ions were removed; chlorate and nitrate by the action of acids, and boric acid by repeated distillation with methyl alcohol in the presence of acid (Quantitative Analysis, Olsen, p. 112). In this way 0.3073 gm. of zyme-oid gave 0.1850 gm. combined sodium and potassium sulphates, and 0.3041 gm. zyme-oid yielded 0.1843 gm. combined sulphates. From these figures the sodium content was calculated after the potassium was determined; average, 9.84 per cent. sodium.

The combined sodium and potassium sulphates were dissolved in water and freed from sulphate, and the potassium determined in the usual way as the chlorplatinate, 0.3041 gm. zyme-oid yielding 0.2562 gm. potassium chlorplatinate, equivalent to 13.58 per cent. of potassium. In the second determination 0.3073 gm. of zyme-oid yielded 0.2557 gm. potassium chlorplatinate, an equivalent of 13.42 per cent. of potassium; average, 13.50 per cent. potassium.

The chlorate was determined by reduction of the chlorate to chlorid, having first demonstrated the absence of any chlorid and determining as silver chlorid (Daclin-Répert. de Pharm., 1907, p. 397) and calculating to chlorate. It was found that 0.0751 gm. zyme-oid gave 0.0355 gm. of silver chlorid, which corresponds to 0.0206 gm. chlorate (ClO_3), or 27.51 per cent., and that 0.0815 gm. zyme-oid yielded 0.0387 gm. silver chlorid, equivalent to 0.0224 gm. chlorate (ClO_3), or 27.55 per cent.; average, 27.53 per cent. chlorate (ClO_3).

The nitrate was determined by the zinc-iron method (U. S. Department of Agriculture Bulletin, No. 46, p. 21). By this method 0.7949 gm. zyme-oid was found to contain 0.0433 gm. nitrogen, equivalent to 24.15 per cent. of nitrate. A second determination indicated the presence of 23.29 per cent. of nitrate; average, 24.22 per cent. of nitrate (NO_3).

Boric acid was determined by titration in the presence of glycerin (R. T. Thomson, Jour. Soc. Chem. Industry, xii, 432). It was found that 1.2977 gm. zyme-oid required 5.01 c.c. normal alkali, equivalent to 23.94 per cent. of boric acid, and 1.5826 gm. zyme-oid required 6.12 c.c. normal alkali, equivalent to 23.69 per cent. of boric acid. From the average of these results, boric acid anhydrid was calculated.

Calculations.—All the chlorate was calculated to potassium chlorate and all the nitrate was calculated to sodium nitrate. The remaining potassium and sodium was then calculated to potassium and sodium tetraborates, as this appeared to be the most likely combination of the extra sodium and potassium. Then the quantity of boric acid equivalent to the sodium and potassium tetraborates was subtracted from the total boric acid, giving the quantity of uncombined boric acid.

Cuticura Resolvent.

In the investigation of secret remedies the *British Medical Journal* (April 18, 1908), takes up the nostrums advertised to the British public for the treatment of skin diseases. Among these the Cuticura remedies which are prepared by the Potter Drug and Chemical Corporation, Boston, and are widely sold in America, are of special interest. The advertisements recommend these preparations for a variety of skin affections and imply their special value in syphilis. The remedies consist of the cuticura soap, ointment and an internal remedy known as Cuticura Resolvent. The last named preparation is said to be alterative, antiseptic, tonic, digestive, and aperient, and is recommended for purifying the system of humors of the skin, scalp, and blood, with loss of hair. It is to be given in a dose of two teaspoonfuls for adults three times a day. Analysis showed the composition of the mixture to be:

Potassium iodid	17 grains
Sugar and glucose	486 grains
Extractive	8 grains
Alcohol	10 fluidrams
Water sufficient to make	6½ fluidounces

In this preparation, which is sold for 60 cents for 6½ ounces, no alkaloidal substance was present; the extractive gave a slight indication of the presence of a preparation of rhubarb; all other drugs with well-marked characters were absent. It is a good illustration of the power of advertising and the faith of the credulous public that less than a grain of potassium iodid at a dose is believed to produce effects when given in a secret nostrum which can not be attained by the usual methods of treatment.

Correspondence

The Midwives of Chicago.

CHICAGO, May 18, 1908.

To the Editor:—In THE JOURNAL, May 16, we note a letter from Dr. Egan, secretary of the State Board of Health, criticising the report issued by the Committee on Midwives of the Chicago Medical Society. We feel that Dr. Egan does not meet the issue fairly. He admits the truth of the deplorable state of affairs as revealed in the report, but he disclaims all responsibility on the part of the board; in fact, he censures the committee for not notifying the board of the criminality of certain midwives as soon as the facts were discovered. We feel that the committee was not derelict in duty from this fact. Directly after the council of the Chicago Medical Society created the Committee on Midwives, its chairman visited Dr. George W. Webster, president of the State Board of Health, and outlined to the president the course to be pursued in the investigation. At this private conference with Dr. Webster, in his own office, Dr. Webster reiterated his expressions of commendation, and offered every assistance in his official capacity, which he had previously done from the chair

when presiding over the deliberations of the council. Dr. Webster heartily approved of our desire to have our investigator appointed an inspector of the State Board of Health; he gave the chairman of the committee a letter to Mr. C. R. Chindblom, attorney for the board of health, who directly has supervision of the inspectors. The chairman assured Mr. Chindblom that any information which might be of service to the State Board of Health would be given promptly to the board by the committee. Dr. Webster stated that he would confer with Mr. Chindblom and Dr. Egan on this matter, as Mr. Chindblom asserted he would likewise seek advice with Dr. Webster and Dr. Egan. At a second conference Dr. Webster stated that the authorization would be given the inspector; on the second visit to Mr. Chindblom he agreed to mail the appointment. We waited some weeks, and at the next meeting of the council Dr. Webster again stated that the plan was to be given official recognition by the board. As no letter was received from the State Board of Health, the committee decided to make an independent investigation. If any accusations of dereliction of duty are due anyone, it would appear to us that the State Board of Health alone had omitted a public duty.

Who then is responsible for the ignorance and criminality of the midwives of Chicago? Of course, in the last instance the responsibility for all abuses comes back to the community. But the community, as a whole, can not control any situation, and, therefore, delegates its powers to certain appointed bodies.

The State Board of Health has been given charge of the practice of midwifery, and it can not rid itself of responsibility in the matter by claiming that it has too little power unless it can prove that it has made genuine but fruitless efforts to have these powers increased. Dr. Egan contents himself with a mere statement as to the impossibility of securing further legislation on this subject. It would seem rather that the board has merely acquiesced in a situation which it admits to be fraught with grave peril to the public.

According to Dr. Egan's letter, it is impracticable for the board to insist on an examination which will really test the training of the prospective midwife. Such an examination should include, as all will agree, evidence of attendance under proper instruction on a certain number of obstetric cases, and, further, should include practical tests.

Dr. Egan makes animadversion to our ideal conditions outlined in our conclusions. The increased requirements brought about by legislative enactment for the practice of medicine in Illinois surely permit us to expect that similar progress in the requirements for midwifery practice is not too utopian for suggestion, and clearly could be formulated into practical law. The enforcement could be secured by efficient executive function. Even as the law now stands it would appear to the committee that the sentence in Paragraph 3, of the act regulating the practice of medicine, in force July 1, 1899, was sufficiently elastic and comprehensive—to wit: "The examination of those who desire to practice midwifery shall be of such character as to determine the qualification of the applicant to practice midwifery." This surely gives the State Board of Health ample discretionary power to make the examination a reasonable test of ability. If prospective physicians are compelled to show evidence of, for example, obstetric experience by ruling of the board, then certainly the board may likewise compel candidates for midwifery license to show like evidence. We can not see why it should be found "impracticable" in the case of midwives. If dentists and undertakers are given practical tests, why is it "impracticable" for the midwife? There is nothing in the law to prevent the board demanding actual clinical experience, and practical demonstrations on the manikin from midwives.

It must be admitted that the practice of midwifery has been pretty completely neglected by the State Board, as evidenced, among other things, by the deplorable condition of the registry which Miss Crowell speaks of. It is true that the general public, the various philanthropic bodies in Chicago, and the medical profession are all under obligation to urge a reform in this department. But the initiative in such reform should have been taken by the State Board of Health long ago, as alone familiar with the existing evils, and as especially appointed to control this class of women. The board has not done its full duty when it deplores the present state of things and expresses its readiness to welcome any reform which outsiders may effect. In conclusion, the evidence is so clear that he who runs may read that the midwives as a class constantly violate the medical practice act by prescribing medicine and by often attempting serious obstetric operations. It appears culpable blindness when this state of affairs is tolerated with little or no attempt to check it.

RUDOLPH W. HOLMES, M.D.,
Chairman of the Committee on Midwives, Chicago Medical Society.

The Roentgen Ray Not an Unmixed Blessing to the Surgeon.

PHILADELPHIA, May 12, 1908.

To the Editor:—The warning contained in the editorial in THE JOURNAL, May 9, 1908, "The Roentgen Ray Not an Unmixed Blessing to the Surgeon," is timely and valuable. There are one or two other points that may be of value to the surgeon in warding off malpractice suits.

The Roentgenogram must, as you say, be interpreted by an expert, especially in court cases. In the case cited it must have shown not only how great the resulting deformity was after union, but also how serious the injury was and how impossible of reduction without open operation.

In malpractice suits the Roentgenogram should always be made to show how serious the original injury had been and hence the difficulties with which the surgeon had to contend, and the disability that was to be expected.

The safety of the surgeon lies in employing the Roentgenogram in all his cases to show the result of reduction and fixation, if not for diagnosis. When the surgeon suggests the employment of the Roentgen examination and is refused its aid by the patient, he is freed from its adverse testimony and is not bound by its standards.

In cases in which the Roentgenogram shows that the fracture can not be reduced or probably held by fixation dressings, open operation should be demanded. Exact coaptation of fragments and symmetrical bony union can not be demanded unless the surgeon is afforded the opportunity by open operation of fixing the bones themselves.

If the choice of Roentgen examination and of open operation are refused by the patient the surgeon is freed from much responsibility. It is much better to have the Roentgen rays employed before rather than after union has taken place. It is the most accurate method of diagnosis and if employed after fixation dressings are applied it furnishes positive evidence that the reduction, setting and fixation were proper and that any subsequent deformity resulted from the negligence of the patient.

Properly employed and expertly interpreted, the Roentgenogram forms the greatest safeguard that the practitioner or surgeon can have in the treatment of fractures.

CHARLES LESTER LEONARD, M.D.

Association News

Entertainment for Alumni of College of Physicians and Surgeons, Chicago.

The faculty of the College of Physicians and Surgeons of Chicago is making preparations for the entertainment of the alumni during the meeting of the American Medical Association, June 2-5. Headquarters will be at the Auditorium Annex and members of the alumni can gather there and meet their friends and renew old associations. An informal reception will be given at the Great Northern Hotel June 2, from 8 to 11:30 p. m., at which all members of the alumni will be entertained as guests of the faculty.

Banquet to Alpha Omega Fraternity.

An assembly and banquet of the Alpha Omega Alpha Honorary Medical Fraternity will be held June 3, 6:30 to 8:30 p. m., at the Great Northern Hotel. Each of the fourteen chapters will be represented on the program by a delegate.

Book Notices

THE PROLONGATION OF LIFE. By Elie Metchnikoff, subdirector of the Pasteur Institute, Paris. English Translation Edited by P. Chalmers Mitchell, M.A., D.Sc., Oxon., Hon. LL.D., F.R.S., Secretary of the Zoological Society of London. Cloth. Pp. 343. Price, $2.50. New York: G. P. Putnam's Sons, 1908.

In this work, a sequel to his "Nature of Man," Metchnikoff discusses neither exhaustively nor conclusively, the three chief evils which hang over mankind—disease, old age and death. Of the first of these he believes that rational hygiene and prophylaxis should ultimately rid the race; and he declares that senility and death should be postponed until long after the periods at which we are accustomed to see them.

That in our generation more has been done than ever before to eradicate disease is unquestionable. Its ultimate extinction, however, can not be hoped for so long as we have to contend with vicious heredity, untoward environment and weak and perverse wills. There is good ground for the opinion that old age should be much longer postponed than is now generally the case. The eighteenth century physiologist, Haller, declared that one ought to live 200 years. Flourens estimated that as man takes twenty years to grow, he ought naturally to live five times that number of years, or to the century limit. Buffon estimated that the duration of life in any animal—man or another—is six or seven times that of its period of development. Considering human growth to be attained at adolescence, he concluded that our span of life should be rather five score than three score and ten. We imagine that centenarians are rare; but this does not seem to be the case, as Metchnikoff tells us that nearly 150 people die every year in France after having reached the century mark. In eastern Europe this phenomenon is still more common; in Greece centenarians are, relatively to the population, about nine times as numerous as they are in France.

Metchnikoff believes that old age is nearly always premature; and he holds that the colon is the chief enemy of long life—a useless organ, merely a culture tube for many dangerous bacteria. In most cases he thinks that senility is due to intestinal putrefaction; toxins, such as indol, skatol and the like, being evolved by germs inimical to health. By the free ingestion of microbes antagonistic to these putrefactive agencies the growth and toxic influence of the latter should be inhibited. Particularly should we take in skimmed milk, in which lactic acid fermentation has been induced. It may be mentioned in passing that Metchnikoff has taken means, in ways of no great interest to science, to place the germs bringing about this fermentation—and more especially the Bulgarian bacillus—within reach of everyone.

While Metchnikoff thus emphasizes the large intestine, he does not consider other possible modes of specific invasion, neither does he dwell on the truism that morbid processes are almost never the result of but one factor, nor that there is also at least diminished tissue resistance, which predisposes the organism to microbic attacks. In discussing Metchnikoff's thesis, Herter[1] points out that he designates no definite group of bacteria, but is general in his condemnation of them; nor does he differentiate regarding the often very wide degree of pathogenicity possessed by given forms. In gastric cancer there is much lactic acid, which nevertheless in such cases has no appreciable effect on intestinal putrefaction.

In accord with the charming optimism generally pervasive of Metchnikoff's book (its title in the original is "Essais Optimistes"), the ideal old age should be so prolonged that the coming of death, humanity's greatest terror, should be awaited with equanimity. In that happy era when diseases have been suppressed, death should visit us only in extreme old age. It should obtrude itself only in its natural place at the close of a long cycle of existence, when there should be no fear of it and when it should be gratefully welcomed. The instinct of life would then be replaced by an instinct of death, or, as the venerable aunt of Brillat-Savarin said to him, on her deathbed: "My dear, if you ever reach my age, you will find that one wants to die just as one wants to sleep."

1. THE JOURNAL A. M. A., Dec. 14 and 21, 1907.

HYPNOTIC THERAPEUTICS IN THEORY AND PRACTICE. By John Duncan Quackenbos, A.M., M.D. Author of "Hypnotism in Mental and Moral Culture." Cloth. Pp. 330. Price, $2.00. New York: Harper & Brothers.

This book would hardly deserve notice were it not for the fact that it is clearly intended for the layman, who is not in a position to recognize its faults, and hence its dangers. A psychology based on an unscientific conglomeration of science, metaphysics, telepathy and spiritualism, can hardly be palatable to the medical man; still less will he relish the many contradictions, glaring exaggerations and misstatements. A complete list of these would require a small volume, so a few examples will have to suffice: "Anemia of the brain encourages the nutrition of that organ;" "all neurasthenics are hydrophobiacs with desiccated nerves;" fast driving of automobiles "is a recognized cause of ataxia and Bright's disease;" "experiments with condemned criminals show that a conviction of having slept in beds infected with the poison of contagious disease has resulted in the immediate assumption by the subjects of the symptoms of such disease with fatal terminations."

The list of ailments which the author claims to have cured by means of suggestion, however, is the most surprising thing in the book. In it we find mentioned among others: low intelligence, migraine, menstrual disorders and tendency to miscarriage, epilepsy, intellectual unbalance, dementia præcox and incipient insanity. That suggestion may soften a sclerosis and hasten the absorption of exudates and inflammatory products has probably never been claimed before, even by the most enthusiastic suggestionists. After having read such statements, the claim that dipsomania was cured in a single interview and that the speedy development of intellectual germs and the evocation of latent talent and inherent creative power is possible will not seem surprising. We read of rather indifferent actors, painters and authors whom a few treatments with hypnotism raised to the rank of the greatest of their kind and of the possibility of fitting a college student for a rigid examination by the same means. Even in locomotor ataxia, angina, cancer and tuberculosis this marvelous remedy proved to be most useful in the author's hands.

But the most miraculous of his cures he performed on a girl who had passed through a series of infections culminating in pneumonia. When her temperature had reached 107.5 F., her pulse 160 and the respirations 60, the attending physician had withdrawn in despair—as well he might—with the statement that the patient could not live for two hours. She had been unconscious for two weeks, but in spite of this unconsciousness she promptly replied to the author's suggestion that she must "return." It is needless to state that she speedily recovered. And this after the author himself has acknowledged that in organic diseases suggestion can do nothing.

That some of the most experienced hypnotists, among them some whom the writer himself mentions as authorities on the subject, have had very grave, even fatal accidents, does not deter him from claiming that hypnotization used by the skilled operator for legitimate purposes is "absolutely innocuous."

The following passages savor strongly of "patent medicine" literature: "I am treating cases without number, both of men and women, for intellectual decay due to this cause (masturbation) alone." "Unless the unfortunate subject can obtain outside psychic aid through suggestion in some form, he ultimately finds his way into the asylum, the prison or the suicide's grave." Thus we are prepared for the statement that "patients who invoke the suggestionist's services with the purpose of evading their pecuniary obligations seldom receive benefit."

That the author has succeeded in inducing a reputable house to publish his work seems to us satisfactory evidence that he is a past master in the art of suggestion.

DISEASES OF THE BREAST WITH SPECIAL REFERENCE TO CANCER. By William L. Rodman, M.D., LL.D., Professor of Surgery in the Medico-Chirurgical College of Philadelphia. Cloth. Pp. 385, with 111 illustrations. Price $4.00. Philadelphia: P. Blakiston's Son & Co., 1908.

The author is to be congratulated in making a departure from the ordinary form of text-books on surgery which attempt to cover every phase of this rapidly growing branch of

medicine. This departure consists in writing a monograph on one of the most important subjects in surgery, viz., diseases of the breast. He has covered the ground in a most satisfactory manner, and the book is made a very readable one through its giving the author's personal opinions derived from his own experience in this particular field. A slight omission, however, of the personal pronoun would not detract from future editions of the book. The chapters on anatomy and syphilis, written by Dr. C. W. Bonney, are especially thorough, but it would seem as though some departure could be made from the ordinary stock illustrations which need to be borrowed from the standard text-books. An interesting point in the chapter on anatomy is the fact that prolongations of glandular substance may extend upward toward the clavicle, downward toward the external oblique muscle, inward to the sternum, and frequently outward to the axilla. Cusps of glandular tissue also sometimes perforate the retromammary fascia and invade the substance of the pectoralis major muscle. There are a number of excellent half-tone and colored illustrations, but with the extensive experience of the author, many more of his own specimens could have been called on than is the case. The colored illustrations, such as cancer en Cuirasse, are specially to be commended. There is no mention of the Bier-Klapp method of suction treatment in acute mastitis. The description of chronic mastitis and the difficulty of differentiating it from malignant neoplasms is well brought out. Every one will endorse the statement on page 73 that in a certain proportion of cases of advanced cystic disease with proliferation of epithelium, the morbid process may advance to malignancy. The classification and description of the various forms of tumors of the breast are thoroughly up to date, the pathology being especially well considered. Many of the photographs throughout the book could be retouched with profit to their value as medical illustrations. There are but few references to the literature, which seems rather regrettable in a special treatise on any subject. Altogether, the book is the most satisfactory which has appeared up to the present time on diseases of the breast.

ATLAS AND TEXT-BOOK OF HUMAN ANATOMY. By Johannes Sobotta, M.D., Professor of Anatomy in the University of Würzburg. Edited with Additions by J. Playfair McMurrich, A.M., Ph.D., Professor of Anatomy in the University of Toronto. Vol. III. Pp. 342. With 297 illustrations. Cloth. Price, $6.00. Philadelphia: W. B. Saunders Co., 1907.

The third and final volume of this work deals with the vascular system, the lymphatic system, the nervous system, the organs of special sense, and the integument. Two appendices are added. One takes up the regions of the body, and the other is devoted to a few general remarks on its structure and early development.

In its general features this volume conforms with the first and second, which already have been reviewed. As in them, the plates are large, comprehensive and accurate, most of them being based on photographs. They are colored so as to approximate fairly the appearances actually seen in anatomic preparations. The various structures are clearly distinguished and the general artistic effect is good. They are arranged in the order in which the student encounters the structures in the regular course of work in dissecting laboratories.

Certain features in the third volume are particularly noteworthy. One is the representation of arteries, veins and nerves all in the same figures. They are depicted with equal care and their relations to one another are clearly manifested. This is convenient and valuable, because it shows relations at a glance, because it is like the actual dissections, and because it permits of an exhaustive presentation of the anatomy of these structures in a relatively small number of plates. Another noteworthy feature is the section dealing with the lymphatic system. Seven and a half pages of text, four large plates, and several smaller figures are devoted to this exceedingly important topic. The term "lymph gland" has been dropped entirely and replaced by the better one of "lymph node."

The gross anatomy of the central nervous system is shown in a series of seventy-four beautiful plates and figures made from excellent dissections. In Figures 624, 632 and 648, the cavity of the septum pellucidum is made to appear as though in communication with the cavity of the third ventricle, an error which should be corrected in later editions. The courses of the more important fiber tracts are shown in colors in seven wood cuts.

As a whole, this is a valuable work for anyone wishing to review gross human anatomy. While the total number of illustrations is a little smaller than in some other atlases, the greater size of the plates and the more topographic character of at least a part of the work offset this, and the number and scope of the figures are sufficient to meet the needs of the ordinary student. The section dealing with the viscera is particularly good. The plates are beautiful, numerous and comprehensive, each one showing many structures.

It is regrettable that the Basle terms, used in the original German, were not retained. They are simple, accurate, brief and significant. Changes of them are almost invariably changes for the worse, and it is to be hoped that they may soon come into general use here as they are now in Germany. The terms used in the book are not consistent in form or spelling. About a third are in Latin and the rest in English. This mixture is confusing, and does not tend to carefulness and precision, qualities for the development of which the study of anatomy might afford a valuable discipline.

BRADYCARDIA AND TACHYCARDIA. Part II of Clinical Treatises on the Symptomatology and Diagnosis of Disorders of Respiration and Circulation. By Prof. Edmund von Neusser, M.D., Professor of the Second Medical Clinic, Vienna. Authorized English Translation by Andrew MacFarlane, M.D., Professor of Medical Jurisprudence and Physical Diagnosis, Albany Medical College. Cloth. Pp. 150. Price, $1.25. New York: E. B. Treat & Co., 1908.

This book, the second one in the series which von Neusser is writing, is even more interesting than the first. The various affections in which disturbances in the heart's rate occur are considered separately and the causes provoking such changes are considered fully. For example, the first sections of the book are devoted to the various toxins which can produce bradycardia. The slow heart in Adams-Stokes disease and other heart affections, in diseases of the brain, in hysteria and melancholia, is fully considered. The second part is devoted to a discussion of tachycardia and its occurrence in many of the common infections. While the toxin of the infecting organism plays a part, and the chief part, in causing a rapid pulse, it is by no means the only factor. von Neusser states that in pneumonia the rapid pulse "is dependent on the degree of injury to the heart, on the extent of the pneumonic process, on the individual affected, on possible complications (pericarditis, endocarditis, pleuritis) and not less also on the intensity of the intoxication with the poisonous products of the causative factor; even the nature of the latter may not be without influence on this phenomenon." The subject of tachycardia in drug intoxications; in heart affections; in disease or injury of the vagus nerves; in cachexias; in Basedow's disease, and in nervous disorders follows the discussion of its presence in infections. An appendix contains an abstract of W. H. Howells' articles on the "Cause of the Heart Beat," Adams' original article on what is now known as the Adams-Stokes symptom-complex, and an abstract of Stokes' and His' articles on the same subject. Abstracts are also given of American and British medical literature and a foreign bibliography of Adams-Stokes disease. Like its predecessor in the series, this book is an interesting one for the student of diagnosis and of pathologic physiology.

PROSTATIC ENLARGEMENT. By Cuthbert S. Wallace, M.B., B.S. (Lond.), F.R.C.S., (Eng.), Surgeon to East London Hospital for Children. Cloth. Pp. 215, with illustrations. Price $4.00. New York: Oxford University Press, 1907.

This book is an exceedingly valuable contribution to the subject of prostatic enlargements, and is another illustration of the much-to-be commended tendency to take up surgical subjects exhaustively in monograph form. The chapters on anatomy and pathology are the most thorough which have appeared of late years in the English language. They represent the results of a large amount of original investigation undertaken with the idea of settling the structure of the prostate and its relation to its fibrous sheath and to the bladder. The author calls attention to the fact that there are two forms of prostatic enlargement—the encapsulated form, which is

chiefly adenomatous, and the fibrous or diffused variety. The latter is met with in about 15 per cent. of the cases, and can not be enucleated, but must be removed piecemeal. If the monograph had considered chiefly the anatomy and pathology of this organ, it would have been a more satisfactory one than is the case. The chapters on diagnosis and treatment are far less satisfactory and do not represent as extensive a personal experience as is the case in those on anatomy and pathology.

ATLAS DER ÆTIOLOGISCHEN UND EXPERIMENTELLEN SYPHILIS FORSCHUNG (MIT UNTERSTÜTZUNG DER DEUTSCHEN DERMATOLOGISCHEN GESELLSCHAFT). By Prof. Dr. Erich Hoffmann of Berlin. Cloth. 53 Pp. and thirty-four illustrations. Price, 48 marks. Berlin: Julius Springer, 1908.

As a tribute to the memory of Fritz Schaudinn, one of the discoverers of the *Spirochæta pallida*, this atlas has been prepared by his colleague, Prof. Erich Hoffmann of Berlin. With the financial support and interest shown by the members of the German Dermatologic Society and especially by Professor Neisser, the publication of this splendid work has been made possible.

The atlas contains not only reproductions of preparations of Schaudinn and Hoffmann, but also those of many well-known investigators in various European countries. The book contains as frontispiece a fine portrait of Schaudinn, a preface, an introduction and 53 pages of text. There are in all 34 plates. The first 7 show the lesions of experimental syphilis in animals. Among these illustrations are found the original female chimpanzee inoculated by Metchnikoff and Roux in 1903, and illustrations of syphilitic keratitis in the sheep and rabbit. The remaining 23 plates, containing 78 different illustrations, show the *S. pallida* most beautifully and clearly in smear preparations and in sections of various organs of the body. Some of the plates are devoted to various spiral organisms, such as the *S. refringens*, which is to be differentiated from the *S. pallida*. The last 4 plates contain 42 excellent photomicrographs of the *S. pallida* and other spiral organisms. The illustrations of the apes have been made by the animal painter, M. Landsberg, and the histologic and other plates are the work of G. Helbig.

The atlas certainly reflects great credit on its renowned and talented author, and further, on the scientific position held by German dermatologists.

MEDICAL LECTURES AND APHORISMS. By Samuel Gee, M.D., Fellow of the Royal College of Physicians. Flexible Cloth. Pp. 363. Price, $1.50. New York: Oxford University Press. 1908.

This is the third edition of Dr. Gee's little book, but inasmuch as it has not been mentioned in these columns before and because most American physicians probably are not aware of its charms and its value, we take this opportunity to give it a little more complete and more worthy introduction than it has received. In the first place it is well to emphasize that there is a remarkably large amount of real clinical wisdom born of large, well-rounded experience and of much study of old as well as modern literature presented in these lectures and aphorisms, and it would be impossible for any intelligent physician to read them without reaping direct benefit in his diagnosis and his treatment of disease as seen in the individual patient. If one reads, for instance, the first lecture—"The History of a Case of Cerebral Hemorrhage"—one can not but feel that the understanding of the antecedent conditions and the ability accurately to foretell are growing as Dr. Gee so masterfully traces his case from beginning to end. In the aphorisms much of great value to the practitioner is put in terse and striking form. In the next place, great pleasure may be derived in the reading of this book because of its style—graphic, forceful, simple, yet elegant. There is then real profit and real pleasure in store for the physician who reads this book in the proper spirit. The lecture on "Sects in Medicine" should be reserved for an especially favorable hour of intellectual enjoyment.

TRAITÉ CLINIQUE DES MALADIES DE L'ESTOMAC. By Dr. Lucien Pron (d'Alger). Paper. Pp. 417. Paris: Jules Rousset, 1, rue Casimir-Delavigne, 1907.

The first chapters of this book, in which methods of examination are considered, while they present the subject fully, contain nothing new or especially noteworthy. The author's discussion of dyspepsia and the various functional derangements of the stomach and the often coincident or successive occurrence of them in one person is interesting and instructive. The relationship of stomach disorders to disease in other organs is emphasized throughout the book. The chapters devoted to treatment are commendable, and are evidently based on ripe experience. Although the discussion on dietetics contains nothing original, it is valuable, because it presents the subject in the light of facts as revealed by the more recent researches.

AN AID TO MATERIA MEDICA. By Robert H. M. Dawbarn, M.D., Professor of Surgery and of Surgical Anatomy, New York Polyclinic Medical School. Fourth Edition. Revised and Enlarged by Eden V. Delphey, M.D. Pp. 338. Cloth. Price, $1.75. New York: Macmillan Co., 1908.

This little volume gives a succinct account of the remedies official in the U. S. Pharmacopeia, giving the properties, official preparations, dosage, and a very brief statement of the pharmacologic properties. To this is appended short articles on prescription writing, incompatibilities, etc., and a number of lists and tables. The final list describes non-official remedies, including only articles of definite chemical composition. The author emphasizes the duty of the physician to know the exact composition of every medicine he orders. The book is not in any sense a work on therapeutics or pharmacology, but unfortunately this limitation is carried out more rigidly with reference to official than to non-official drugs. The book is well adapted for its purpose, which is to serve as a work of ready reference for student and practitioner.

DISEASES OF WOMEN. A Clinical Guide to their Diagnosis and Treatment. By George Ernest Herman, M.B., Lond., F.R.C.P., Consulting Obstetric Physician to the London Hospital. With 265 Illustrations. Pp. 900. Price, $5.00. New York: William Wood & Co., 1907.

This edition has been revised and brought up to date. The maladies are arranged according to symptoms instead of being grouped under the organ affected. The author states (page 8): "Patients do not come labelled 'disease of the uterus,' 'disease of the ovary,' etc.; they come complaining of symptoms; and the discovery which organ is in fault is often the greater part of the diagnostic problem." The author calls attention to the fact that the family physician, by sound advice, can prevent the patient magnifying trifles, can disabuse her of erroneous theories before they become fixed in her mind, can dispel her fears for the future, and can correct an unhealthy mode of life before it has had time to do harm.

CANCER OF THE STOMACH. By A. W. Mayo Robson, D.Sc., F.R.C.S., Bradshaw Lecturer, 1905. Cloth. Pp. 218. Price, $1.75. New York: William Wood & Co., 1907.

This is a short but pithy synopsis of our present knowledge of this important subject. It was written as one of the Nisbet Modern Clinic Series for the "busy practitioner." Its object in this direction is fully accomplished. To those who do not find the opportunity to read the larger works on cancer of the stomach this little volume can be warmly recommended.

THE PYONEX: ITS THEORY AND PRACTICE. By W. B. Rule, M.R.C.S., L.R.C.P. Cloth. Pp. 572. Price, $3.00. London: John Bale, Sons and Danielsson, Ltd., 1907.

This book is a special plea for a special mode of treatment which is based on an error of reasoning. It is full of misstatements and partial statements due to ignorance of pathology, symptomatology and therapeutics or to intentional omission. There is nothing in it to be recommended to either the medical man or layman.

DICTIONNAIRE TECHNOLOGIQUE, dans les Langues Française, Allemande et Anglaise. Renfermant les termes techniques usités dans les arts et métiers et dans l'industrie en général. Rédigé par M. Alexandre Tolhausen, traducteur près la Chancellerie des Brevets d'Invention à Londres. Revu par M. Louis Tolhausen, ancien consul général de France, officier de la Légion D'Honneur. Français-Allemand-Anglais. Cinquième édition, avec un nouveau grand Supplément de 1901, enrichi de nombreux termes d'électricité, de télégraphie, de téléphonie et autres. Three volumes. Cloth. Price, $2.75 each. Vol. I, pp. 1018. Vol. II, pp. 1040. Vol. III, pp. 1037. New York: The Macmillan Co.

The vast and rapid growth of technical words and expressions in the middle of the last century gave rise to the first edition of this work, which was published in 1877, and at that time contained about 75,000 words. In the present (fifth French and English, fourth German) edition, there has been added to each volume an appendix containing the more recent terms, particularly those connected with the development of

electric science and arts. This appendix occupies about 180 pages in the French and English editions and 77 pages in the German. This work will doubtless continue to prove useful to those for whom it is apparently intended, viz., those interested in the industrial arts, applied sciences, etc. It does not, however, include the biologic sciences, simple or applied with the exception of some terms in dentistry.

MANUAL OF DISEASES OF THE EYE. For Students and General Practitioners. By CHARLES H. MAY, M.D., Chief of Clinic and Instructor in Ophthalmology, College of Physicians and Surgeons, Medical Department, Columbia University, New York. Fifth Edition. Revised. Illustrated. Cloth. Pp. 391. Price, $2.00 net. New York: William Wood & Co., 1907.

This popular manual is essentially a work for the general practitioner. While it does not aim to take the place of the larger text-books on ophthalmology, it covers the subject concisely and clearly. The illustrations are good.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish name or address will be faithfully observed.

OCULAR TUBERCULIN REACTION.

STAUNTON, VA.

To the Editor:—Can you refer me to the literature regarding the value of the ocular tuberculin reaction as an aid to the diagnosis of tuberculosis? BERTHA D. BERGER.

ANSWER.—The ocular reaction to tuberculin has been the subject of a large number of reports which have generally been favorable, but it must be regarded as still in the experimental stage. The literature is extensive, the following being a list of the principal articles as obtained from THE JOURNAL indices:

Alessandri, G.: Ocular Reaction to Tuberculin, *Gaz. d. Osp.*, Nov. 10, 1908; abst. in THE JOURNAL A. M. A., Jan. 4, 1908, p. 34.

Bing, H. J.: Ocular and Cutaneous Reaction to Tuberculin, *Hosp. Tid.*, Nov. 6, 1907.

Calmette, G.: Ocular Reaction to Tuberculin, *Presse méd.*, June 19, July 13, 1907.

Calmette, G.: *Lancet*, Dec. 21, 1907; abst. in THE JOURNAL A. M. A., Jan. 18, 1908, p. 243.

Calmette, G.: *Internat. Clin.*, iv, series 17.

Cohn, S.: Ocular Reaction to Tuberculin, *Berl. klin. Wchnschr.*, Nov. 25, 1907; abst. in THE JOURNAL A. M. A., Jan. 4, 1908.

Comby, J.: Diagnostic Ocular Reaction to Tuberculin in Children, *Presse méd.*, Aug. 10, 1907.

Downes, H.: Tuberculin Ocular Reaction. *Brit. Med. Jour.*, Dec. 7, 1908; abst. in THE JOURNAL A. M. A., Jan. 4, 1908, p. 76.

Eisen, P.: Ocular Reaction to Tuberculin, *Beitr. z. Klin. d. Tuberk.*, viii, No. 4; abst. in THE JOURNAL A. M. A., Feb. 8, 1908, p. 488.

Eyre, J. W. H., Wedd, B. H. and Hertz, A. F.: Tuberculin Ocular Reaction of Calmette, *Lancet*, Dec. 21, 1908; abst. in THE JOURNAL A. M. A., Jan. 18, 1908, p. 242.

Falkner, E. A.: Ocular Reaction with Calmette's Tuberculin, *Australasian Med. Gaz.*, December, 1907.

Franke, E.: Ocular Reaction in Tuberculin, *Deutsch. med. Wchnschr.*, Nov. 28, 1907; abst. in THE JOURNAL A. M. A., Jan. 4, 1908, p. 82.

Hutchings, W. H.: Ocular Reaction to Tuberculosis, *Therap. Gaz.*, December, 1907.

Kohler, F.: Ocular Reaction to Tuberculin, *Deutsch. med. Wchnschr.*, Dec. 12, 1907; abst. in THE JOURNAL A. M. A., Jan. 18, 1908, p. 247.

Letulle, M.: Reaction of Eye to Tuberculin in Pulmonary Tuberculosis, *Presse médicale*, 1907.

Levy, F.: Ocular Reaction to Tuberculin, *Deutsch. med. Wchnschr.*, Jan. 16, 1908; abst. in THE JOURNAL A. M. A., Feb. 22, 1908, p. 652.

MacLennan, W.: Ocular Reaction to Tuberculin, *Brit. Med. Jour.*, Dec. 7, 1907; abst. in THE JOURNAL A. M. A., Jan. 4, 1908, p. 77.

Mainini, C.: Cutaneous and Ocular Reaction to Tuberculin, *München. med. Wchnschr.*, Dec. 24, 1907; abst. in THE JOURNAL A. M. A., Feb. 1, 1908.

Olmer and Terras, M.: Cutaneous and Ocular Reaction to Tuberculin, *Presse méd.*, Sept. 18, 1907, p. 593.

Plehn, A.: Ocular Reaction to Tuberculin, *Deutsch. med. Wchnschr.*, Feb. 20, 1908; abst. in THE JOURNAL A. M. A., March 28, 1908, p. 1085.

Rosenberg, A.: Ocular Reaction to Tuberculin, *Berl. klin. Wchnschr.*, Jan. 27, 1908.

Schenck, E.: Ocular Reaction to Tuberculin, *Deutsch. med. Wchnschr.*, Jan. 9, 1908.

Schroer, H.: Value of Cutaneous and Ocular Reaction to Tuberculin, *Lancet-Clinic*, Jan. 11, 1908.

Smithies, F., and Walker, R. E.: Calmette's Ophthalmic Reaction to Tuberculin, THE JOURNAL A. M. A., Jan. 25, 1908, p. 259.

Stadelmann, E.: Ocular and Cutaneous Reaction to Tuberculin, *Deutsch. med. Wchnschr.*, Feb. 13, 1908; abst. in THE JOURNAL A. M. A., March 21, 1908, p. 1000.

Stoll, O.: Ocular Reaction to Tuberculin, *Cor.-Bl. f. Schweiz. Aerzte*, Jan. 15, 1908.

Thiis, K.: Ocular Reaction to Tuberculin, *Norsk Mag. f. Laegevidenskaben*, January, 1908.

Webster, J. S., and Kilpatrick, J. A.: One Hundred and Twenty-one Cases Tested with Tuberculin, *Brit. Med. Jour.*, Dec. 7, 1907; abst. in THE JOURNAL A. M. A., Jan. 4, 1908, p. 76.

Wiens, Günther and Klieneberger: Cutaneous and Ocular Reaction to Tuberculin, *München. med. Wchnschr.*, liv, No. 52, p. 2581; abst. in THE JOURNAL A. M. A., Feb. 1, 1908, p. 411.

Wolff-Eisner, A.: Ocular and Cutaneous Diagnosis of Tuberculosis, *Beiträge z. Klinik d. Tuberkulose*, ix, No. 1; abst. in THE JOURNAL A. M. A., March 7, 1908, p. 806.

Zaniboni, B.: Ocular Reaction to Tuberculin, *Policlinico*, Jan. 5, 1908; abst. in THE JOURNAL A. M. A., Feb. 8, 1908.

DOSE OF DIGITALIN.

KALAMAZOO, MICH., May 1, 1908.

To the Editor:—I had occasion to order some digitalin recently and find the greatest discrepancy as to dosage. Merck gives the dose as from 1/10 to ½ grain, while Wood's "Therapeutics" gives absolutely no dosage, saying simply that a dose of "1/9 grain has been recovered from." I see now that in a little note, it gives 1/50 grain as a dose, but adds that "there is no sufficient reason for its employment." Will you let me know something about it?

E. J. BERNSTEIN.

ANSWER.—The chemistry of digitalis is after much investigation still somewhat uncertain. The drug contains several substances of the nature of glucosides which it is difficult to isolate in a pure condition. Hence the preparations put on the market are seldom pure and in the case of the pure principles it can not be said that any one of them represents the therapeutic virtues of digitalis in their entirety.

The preparation known as digitalin is on the market commonly in two forms—the German and the French. The German consists of a mixture of the principles found in digitalis and has considerable use in Germany. It is soluble in water and may be given in doses varying from 1/50 to 1/32 grain and this may be increased with safety to ⅛ grain as it has been shown by Arnold and H. C. Wood, Jr., that ¼ of a grain is about equivalent to 15 minims of tincture of digitalis. The French digitalin which is official in the French pharmacopeias is insoluble in water and is given in much smaller dosage beginning with 1/250 grain and increasing rapidly to 1/40 grain a day the maximum daily dose being 1/30 of a grain. In addition to these two forms, Merck lists a crystallized digitalin which is said to have no physiologic action on the heart.

German digitalin appears to be a mixture of digitonin with a much smaller amount of digitalein, crystallized digitalin, and the *digitalinum verum* of Kiliani. Digitonin is said to have an action similar to that of saponin which is antagonistic to that of digitalis. This may explain why the dose of the German preparation is so much larger than that of the French preparation. The French digitalin is believed to be composed mostly of a glucoside similar to digitoxin. Digitoxin is the most poisonous principle contained in digitalis and appears to have an action on the circulation similar to that of the crude drug. It should not be given in doses larger than 1/240 grain to begin with, and this may be cautiously increased to 1/60 as a maximum. Digitalein (not digitalin) is a diuretic and heart tonic; the dose is from 1/64 to 1/50 grain from two to four times a day.

Since the action of these supposed active principles is so uncertain, it is probably better at present to use the official preparations of digitalis itself.

ACTION OF ALKALIES ON CALOMEL.

SHEBOYGAN, WIS., April 29, 1908

To the Editor:—When a medical student, I was warned not to administer calomel and lime water together for fear of the formation of mercuric chlorid (corrosive sublimate). I was considerably concerned some time ago on learning that the mother of one of my little patients had given him calomel and milk of magnesia together but fortunately the combination did no harm. What reaction takes place in this case and how great is the danger of the formation of mercuric chlorid? S.

ANSWER.—Mercurous compounds are decomposed by alkalies, such as sodium, potassium, calcium or magnesium hydroxid with formation of mercurous oxid which latter readily decomposes into

metallic mercury and mercuric oxid. Mercuric oxid dissolves in hydrochloric acid with formation of mercuric chlorid. On these changes the reputed danger of the administration of calomel and lime water is based. Against the occurrence of these reactions operates the fact that calomel is very insoluble and that hence alkalies do not readily act on it. Second, that when alkalies are administered the acid in the stomach is neutralized and hence can not dissolve the mercuric oxid. While calomel and an alkali should not be administered simultaneously it is probable that the danger of such administration has been overestimated.

FORMULA OF HARRINGTON'S SOLUTION.

YORKTOWN, TEXAS, May 6, 1908.

To the Editor:—Please give the formula of Harrington's solution. ROBERT WESTPHAL.

ANSWER.—Harrington's solution consists of commercial alcohol (94 per cent.), 640 c.c.; hydrochloric acid, 60 c.c.; water, 300 c.c.; corrosive sublimate, 0.8 gm. It is intended for hand disinfection. The hands and arms should first be thoroughly washed with sterile soap and hot water and then bathed in the solution for half a minute or longer.

COUCHEE COUCHEE AS A MEDICAL SUBJECT.

NEW YORK, May 7, 1908.

To the Editor:—Permit me to add to your editorial, April 25, on "Medical Nomenclature," a new curiosity in medical language, the word "gastromyorrhea," which I found on the program of the American Gastro-Enterological Association, which is to meet in Chicago, next June. Translated, it is "running away of gastric muscles" suggesting some kind of *"danse de ventre"* first introduced in this country at the great World's Fair in Chicago.

A. ROSE.

The Public Service

Army Changes.

Memorandum of changes of stations and duties of medical officers, U. S. Army, week ending May 16, 1908:

Baker, F. C., captain M. C., ordered to Ft. Moultrie, S. C., for temporary duty during army and militia defense exercises, June 18 to 28.

Koerper, C. E., captain M. C., granted leave of absence with permission to visit the United States, to sail from Havana May 22, and to sail from Newport News, returning June 15.

Ashford, B. K., captain M. C., relieved from duty at Washington Barracks, D. C., about July 1, and ordered to San Juan, P. R., for duty.

Rafferty, O., major M. C., when relieved from duty at San Juan, P. R., ordered to Ft. Wayne, Mich., for duty.

Raymond, H. I., major M. C., ordered to Washington Barracks, D. C., for treatment at the general hospital.

Vedder, E. B., captain M. C., granted leave of absence for four months.

Deshon, G. D., major M. C., relieved from duty and station at Ft. Des Moines, Iowa, and assigned to station and duty at the Army and Navy General Hospital, Hot Springs, Ark.

Whinnery, J. C., dental surgeon, ordered to Ft. Stevens, Oregon, and Ft. Columbia, Wash., for temporary duty.

Hussey, S .W., dental surgeon, ordered to Ft. Assiniboine, Mont., for temporary duty.

Rhoades, R. H., dental surgeon, granted leave of absence for four months, about June 1.

Gunckel, G. I., dental surgeon, left Ft. Barrancas, Fla., for duty at Key West Barracks, Fla.

Hussey, S. W., dental surgeon, left Ft. Yellowstone, Wyo., for duty at Ft. William Henry Harrison, Mont.

Navy Changes.

Changes in the Medical Corps, U. S. Navy, for the week ending May 16, 1908:

Dennis, J. B., surgeon, detached from the *South Dakota* and ordered to the *Virginia*.

Lowndes, C. H. T., surgeon, detached from the *Virginia* and ordered to the *South Dakota*.

Public Health and Marine-Hospital Service.

List of changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service for the seven days ended May 13, 1908:

Kerr, J. W., asst.-surgeon-general, granted leave of absence for 15 days, to be taken en route between Chicago and Washington, D. C.

White, J. H., surgeon, detailed to represent the service in the Section on Hygiene and Sanitary Science, of the American Medical Association, to be held in Chicago, June 2-5, 1908.

Roseman, M. J., surgeon, detailed to represent the service in the Section on Pathology and Physiology, of the American Medical Association, to be held in Chicago, June 2-5, 1908.

Mathewson, H. S., passed asst.-surgeon, granted leave of absence for one month, from May 15, 1908.

Corput, G. M., passed asst.-surgeon, granted leave of absence for 10 days, from May 11, 1908.

Hamilton, H. J., acting asst.-surgeon, granted leave of absence for 9 days, from May 10, 1908.

Reimer, H. B. C., acting asst.-surgeon, directed to proceed from Boston to New York for special temporary duty, on completion of which to rejoin his station.

Royster, W. L., acting asst.-surgeon, granted leave of absence for 4 days, from May 7, 1908, under Paragraph 210, Service Regulation.

Walkley, W. S., acting asst.-surgeon, granted leave of absence for 10 days, from May 18, 1908.

BOARDS CONVENED.

A board of medical officers was convened to meet at Port Townsend, Wash., for the purpose of making a physical examination of an officer of the Revenue-Cutter Service. Detail for the board: Surgeon W. G. Stimpson, chairman; Acting Asst.-Surgeon R. Lyall, recorder.

Boards of medical officers were convened to meet on May 11, 1908, for the purpose of making physical examination of applicants for the position of cadet engineer in the Revenue-Cutter Service, as follows: At New York: Passed Asst.-Surgeon, J. A. Nydegger, chairman; Acting-Asst.-Surgeon F. Mahoney, recorder. At Baltimore: Surgeon: L. L. Williams, chairman; Passed Asst-Surgeon J. T. Burkhalter, recorder.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended May 15, 1908:

SMALLPOX—UNITED STATES.

Alabama: Mobile, city and county, April 1-30, 17 cases.
California: Los Angeles, April 11-18, 1 case; San Francisco, April 18-25, 9 cases.
District of Columbia: Washington, April 25-May 2, 2 cases.
Illinois: Danville, April 26-May 3, 3 cases; Galesburg, April 25-May 2, 1 case; Rockford, 1 case; Springfield, April 23-30, 5 cases.
Indiana: Anderson, April 23-30, 1 case; Indianapolis, April 26-May 3, 4 cases, 1 death; Lafayette, April 27-May 4, 1 case; Muncie, April 4-May 4, 6 cases.
Iowa: Ottumwa, April 25-May 2, 2 cases; Sioux City, April 1-30, 17 cases; 2 deaths.
Kansas: Kansas City, April 25-May 2, 10 cases; Topeka, April 25-May 2, 2 cases; Wichita, April 25-May 2, 3 cases.
Kentucky: Henderson, April 1-30, 3 cases.
Louisiana: New Orleans, April 25-May 2, 2 cases.
Michigan: Kalamazoo, April 18-25, 3 cases; Port Huron, April 25-May 2, 3 cases; Saginaw, April 18-May 2, 4 cases.
Minnesota: Stillwater, April 23-30, 1 case.
Mississippi: Gulfport, April 24, 1 case.
Missouri: Kansas City, April 25-May 2, 18 cases; St. Louis, April 25-May 2, 1 case.
New York: New York, April 25-May 2, 1 case; Niagara Falls, 2 cases.
North Carolina: Charlotte, April 25-May 2, 1 case.
Ohio: Bucyrus, April 18-25, 1 case; Cincinnati, April 24-May 1, 8 cases.
Tennessee: Knoxville, April 25-May 2, 1 case; Nashville, 1 case.
Texas: San Antonio, April 25-May 2, 5 cases.
Virginia: Newport News, April 1-30, 1 case.
Washington: Spokane, April 18-25, 11 cases.
Wisconsin: Beloit, April 23-May 7, 1 case.

SMALLPOX—FOREIGN.

Africa: East London, March 21-28, 2 cases.
Arabia: Aden, April 6-13, 3 deaths.
Austria: Trieste, April 4-11, 1 case, 1 death.
Belgium: Ghent, April 11-18, 2 cases.
Canada: Halifax, April 11-May 2, 3 cases.
China: Hongkong, March 7-14, 33 cases, 29 deaths; Shanghai, March 15-April 5, 11 deaths.
Ecuador: Guayaquil, April 1-11, 4 deaths.
France: Paris, April 11-18, 2 cases, 2 deaths.
Germany: General, April 11-18, 25 cases.
Great Britain: Leith, April 11-18, 1 case.
India: Bombay, March 31-April 7, 61 deaths; Calcutta, March 14-28, 51 deaths; Madras, March 28-April 3, 1 death.
Indo China: Cholen, March 21-28, 1 case.
Italy: Catania, April 16-23, 1 death; Genoa, March 1-31, 8 cases.
Japan: Kobe, March 28-April 4, 4 cases, 6 deaths; Nagasaki, March 22-29, 1 case; Osaka, March 21-28, 190 cases, 129 deaths.
Java: Batavia, March 7-April 4, 28 cases, 1 death.
Mexico: Aguas Calientes, April 19-26, 1 death; City of Mexico, March 14-21, 11 deaths.
Persia: Chiraz, April 6, epidemic; Kirmanshah, April 6, epidemic.
Portugal: Lisbon, April 6-25, 6 cases.
Russia: Libau, March 28-April 25, 9 cases, 2 deaths; Moscow, April 4-11, 17 cases, 10 deaths; Odessa, 3 cases; Riga, April 4-25, 13 cases; Warsaw, March 21-28, 3 deaths.
Switzerland: Zurich, April 1-18, 5 cases.
Turkey: Bagdad, Feb. 28-April 4, 149 cases, 21 deaths.

YELLOW FEVER.

Brazil: Manaos, April 4-11, 1 case, 1 death; Para, April 11-18, 3 cases, 2 deaths.
Ecuador: Guayaquil, April 4-11, 4 deaths.

CHOLERA—INSULAR.

Philippine Islands: Manila, March 7-14, 2 cases, 2 deaths.

CHOLERA—FOREIGN.

India: Bombay, March 31-April 7, 1 death; Calcutta, 456 deaths; Madras, March 21-April 3, 9 deaths; Rangoon, March 21-28, 10 deaths.

PLAGUE.

China: Hongkong, March 7-14, 2 cases, 2 deaths.
Ecuador: Guayaquil, April 4-11, 49 deaths.
Egypt: General, Jan. 1-April 23, 502 cases, 309 deaths; Alexandria, Jan. 1-April 23, 9 cases, 5 deaths.
Japan: March 18-April 4, 107 cases, 82 deaths.
India: Bombay, March 31-April 7, 491 deaths; Calcutta, March 14-28, 219 deaths; Rangoon, March 21-28, 27 deaths.
Japan: Osaka, March 21-28, 1 case, 1 death.
Peru: General, March 28-April 4, 53 cases, 27 deaths; Callao, March 28-April 4, 2 cases, 1 death; Lima, March 28-April 4, 3 cases, 1 death.

Miscellany

HAARLEM OIL.

How a Nostrum Vendor in Olden Times Used Methods Akin to Those of To-day.

It is interesting to note the close similarity between the methods and claims of nostrum mongers of to-day and of those of a hundred years ago. A circular advertising Haarlem Oil (at that time a secret remedy) the heading to which is here reproduced, contains the embryonic elements of twentieth century "patent medicine" advertising. The advertisement starts out in the approved style with a good strong testimonial —it is, so says the circular, *Medicamentum Gratia Probatum*, the Remedy Approved by Grace. While the more modern Peruna finds difficulty in obtaining testimonials from any source higher than the United States Senate, Haarlem Oil seems to have been in communication with heaven itself.

How familiar does the opening sentence sound:

"This Medicine works miracles with everyone that makes use of it. . . . Thus we observed and were eyewitnesses how it cured a poor Man that for Eleven years had suffered the torment of a wound or fistula caused by two incisions, which came to such a pitch of corruption that it bred worms, so that the poor Man casting from his Urine such a bad smell, he became very troublesome; . . . it is to be admired how much Gravelly Stone came out of the same wound. . . . All whosoever doubts of this truth may examine the same Invalid, by name Adolph Cornelisz, Jonkhout."

From an old-time nostrum circular.

Allowing for the difference in time and locality, how Perunaese in style and diction this reads. Farther along we come to the inevitable stereotyped claim for omnipotent therapeusis:

"It is good for all Bruises in the hands or feet, pains of the Reins, Thickness of Blood, all Black and Blue Spots, all kinds of Fevers, and Indisposition of the stomach, Liver, Loins or Lungs, Asthma, Shortness of Breath, Cough, inward or outward sores and Hysterical pains; it advances the Mences and facilitates the Urine and Stool. . . . It cures the Feary, the Dropsy, the French disease and Kills the Worms."

Could Lydia Pinkham in her palmiest days have done more? The grouping of liver, loins and lungs, while subjecting one's anatomic sense to a strain, leaves nothing to be desired as an example of alliterative diction. Like most of its class, its superiority to the physician's remedies is evidenced as follows:

" . . . several Disorders of twenty to thirty years' standing which were supposed incurable and given up by the Physicians, nevertheless were miraculously cured by the virtue of this Remedy."

Naturally, such an invaluable preparation would be imitated and the medicine-buying public is warned against substitutes and "worthless imitations" in the following ingenuous language:

"I find no Remedy for those that follow bad Council" [counsel?] "or advice; nor for those that do not like Medicine: much less for those that seem too delicate in taking it."

As some of the essential qualities of Haarlem Oil are its unpleasant odor and its even worse taste, the latter admonition seems necessary. The whole circular shows how little actual progress we have made in rising above the psychic effect of a speciously worded advertisement. Change the language to twentieth century style and it would answer to advertise any one of the hundreds of cure-alls on the market to-day.

Hysteria.—A recent meeting of the French Neurologic Society was devoted to a discussion of hysteria, representing a supplementary session of the last annual congress of neurologists. The speakers were limited to expression of their views on the following five questions: 1. In the clinical picture of hysteria as a whole, is there not some special group of symptoms which may be exactly reproduced by suggestion and which may vanish under the influence of suggestion or persuasion alone, especially certain varieties of convulsive seizures, paralyses, contractures, anesthesias, paresthesias, disturbances in the senses and speech, and in the respiratory and digestive systems, etc.? 2. If the existence of such a group is admitted, is it necessary and wise to give this group a name? If so, is "pithiatism" an appropriate term. 3. Are the so-called hysteric stigmata the result of some unconscious suggestion, generally of medical origin? 4. Is it possible that these stigmata can develop without the influence of suggestion? Can they develop spontaneously under the influence of some still unknown factor? 5. Can suggestion or persuasion have an influence on the tendon, superficial and pupil reflexes? On the trophic and circulatory functions and secretions and on the temperature? 6. If it is admitted that suggestion or persuasion has no action on these phenomena, is it possible that there is any connection between them and the phenomena mentioned in the first question? If this connection exists, should it be regarded as causal or independent, or merely an association or coincidence? These six questions were discussed by the leading neurologists of France, the aim being to gather and correlate facts and opinions without attempting a general review by any one person. In a summary of the proceedings given in the *Tribune Méd.*, April 25, it was stated that Babinski's views were those generally favored by the speakers, especially in respect to the lack of any causal relation between suggestion and the development of trophic disturbances—none of the members present having any actual experience with such cases although familiar by hearsay.

Achalme's Bacillus.—Thiroloix, *Bull. de la Soc. de l'Internat. de hôp. de Par.*, January, 1908, offers the following as the conclusions deduced from his study of the bacteriology of acute articular rheumatism: 1. Achalme, Thiroloix, Carrière, etc., have determined *in situ* the same infectious agent in the fundamental lesions of acute articular rheumatism. 2. Thiroloix, Achalme, de Bettencourt, Savtchenko, Melkich, Carrière and G. Rosenthal have isolated in the blood of rheumatic patients the same microbe, the bacillus of Achalme. 3. Thiroloix and Carrière have experimentally produced by culture inoculation of young rabbits the most striking symptoms of acute rheumatism: edematous endocarditis and proliferative and suppurative endocarditis, and exudative arthritis. The pathogenic causal rôle of Achalme's bacillus in acute articular rheumatism is probable, if not certain. But it is necessary to add that this bacillus is banal, widespread in nature and telluric. It only acquires its rheumatic specificity in certain persons and under conditions that need still to be determined. It is one of a group of bacilli that plays a part in the production of a number of disorders, it shares the ubiquity of the streptococcus, pneumococcus and staphylococcus and it may play a similar extensive part in pathology. Its study is incomplete, but promises great interest for those who will undertake it.

Pure Food Insurance.—A rather novel hygienic measure is being considered by the health officials of Montreal, viz., the

starting of a pure food insurance company. The proposition is to have the large, and presumably also the small, dealers use a stamp guaranteeing the purity and wholesomeness of such food products as bear the stamp, which will be an insurance policy, the insuring party agreeing to pay ten times the amount paid by the customer in case the articles are found not as guaranteed. For this protection the customer is to pay a small fee annually (50 cents is the amount stated in the article from which we get the information). There may be communities where such insurance against fraud in foods and other necessities, given by a private company financially duly interested, might be of service in a hygienic way. In this country our national pure food law, supplemented by properly enforced good local or state enactments certainly ought to be sufficient to prevent serious food adulteration.

Ocular Tuberculin Reaction.—M. R. Castex of Buenos Ayres applied the diagnostic instillation of tuberculin in 400 cases and reports in the *Semana Medica*, March 19, his extremely favorable verdict. He found it harmless and reliable not only for diagnosing the disease in adults and children, but also for determining the definite recovery under treatment. In surgical tuberculosis also, he says, it reveals the presence of other unsuspected foci, and it proves that infants born of tuberculous mothers are free from inherited taint. In psychiatry it not only allows the classification of the tuberculous insane but suggests the etiology of certain forms of insanity. In general practice the ocular reaction is proving an important aid in the prophylaxis of tuberculosis in infected families, barracks, etc. Finkelstein recently tabulated in the *Russky Vrach*, April 12, the results reported by twenty-one writers which show that in 768 tuberculous individuals the findings were positive in all but 103, while in 1,106 supposedly non-tuberculous they were negative in all but 113.

Medical Economics

THIS DEPARTMENT EMBODIES THE SUBJECTS OF ORGANIZATION, POSTGRADUATE WORK, CONTRACT PRACTICE, INSURANCE FEES, LEGISLATION, ETC.

Phenomenal Krauss and the Federal Authorities.

The *Journal of the Missouri State Medical Association*, May, contains an editorial regarding "Phenomenal" Krauss, who, it appears, has been arrested by the federal authorities, charged with misuse of the United States mail. As this is a particularly flagrant case, the editorial is quoted in full.

"R. J. ('Phenomenal') Krauss, St. Louis' most shameless medical advertiser, has been arrested by the federal authorities charged with misusing the mails. This step, we hope, marks the beginning of the end to a career which has caused all clean-minded people, lay and medical, to blush for the fair name of our city.

"Krauss' methods of advertising his business did not take the ordinary form usually followed by advertising doctors. Scorning the commonplace advertising in the regular display advertising columns of newspapers, Krauss' advertisements were written in the third person and were published in the regular news columns of the newspapers, with headlines similar to the type used for headings to legitimate news items; thus a cursory reading would leave the impression that the article was written by some person connected with the paper and that it was published as a bit of local news. The only mark in the whole article which showed it to be an advertisement was the insertion of three asterisks at the end. To the initiated this at once stamped it as advertising matter, but few indeed realized the import of these little stars, and usually, of course, they were overlooked altogether. This form of advertising should be suppressed by the newspapers. It is reprehensible at all times and is particularly obnoxious in medical advertising."

As has been demonstrated in a number of cases, the most effective way of bringing these charlatans to justice and putting a stop to their gross deceptions is bringing them to the attention of the United States post office authorities. Prosecutions for practicing medicine without license come under the jurisdiction of the state courts and are consequently first heard in the local courts, sometimes in the police tribunal. The knowledge of the law displayed by some of the judges before whom such cases have come has not been extraordinary, to say the least. In most of the states violations of the medical practice act are at most simply misdemeanors punishable by fine. Unfortunately, the great majority of people regard such an offense as a technical one and consequently little odium is attached to a conviction on such a charge. Prosecution by the federal authorities, however, is based on the use of the United States mail for fraudulent purposes, and conviction consequently stamps the offender as a common fraud, guilty of obtaining money from the people under false pretenses. Not only is such a crime punishable by imprisonment, but what is still more important, the postal authorities promptly deny the use of the mails to the culprit, so that even newspapers containing his advertisement are debarred from transmission through the mails. The result is inevitable. Denied the use of publicity and branded as a fraud, the career of the charlatan in that locality at least is ended.

Practically every advertising doctor is carrying on a fraudulent business, for if his advertising stated only the truth, he would not dupe the public. This fact has long been recognized by the profession, but has not yet been grasped by the laity. The crime is not in the advertising, which in itself would be unobjectionable, were it not accompanied by fraudulent statements. Prosecutions are much more effective and more liable to succeed if undertaken in the federal courts on charges of using the mails to defraud than if undertaken in the state courts on charges of unprofessional conduct or violation of the medical practice act.

Defeat of Chiropractic Bill in Oklahoma.

At a recent meeting of the Oklahoma County (Okla.) Medical Society, resolutions were adopted commending the position of the Oklahoma City *Times* on the "chiropractic bill," which was defeated in the state legislature. The *Times* has opposed the passage of this bill since its introduction and is entitled to much of the credit for its defeat. The following editorial appeared immediately following the defeat of the bill in the senate:

With the killing of the chiropractic bill in the Senate Saturday by a vote of 23 to 12 when there were but 35 senators present, a light attendance, only reflects all the more credit on the medical profession of the state. For a time it seemed as if the "chiros" would gain recognition despite the vigorous fight that was made on the bill but fortunately there were enough senators to change their positions to give it the fate it deserved. It is due doubtless, more to the doctors who are members of the senate, than perhaps to any other one group of men, that this bill was killed, and it is their judgment in a case like this that should be recognized first of all. It is simple enough to mislead those who have absolutely no knowledge of medicine or anatomy, but to offer such a bill as that which gives recognition to such a practice and hope for reputable physicians to recognize it, is too absurd to consider.

If we were disposed to enter into detail and discuss the chiropractic college that is doing business on Broadway, we could say no more than has been said by the doctors on the floor of the senate.

If a person is willing to place himself in the hands of such practitioners and whip his conscience into believing that the rubbing of the spine and other portions of the anatomy is a permanent cure, then it is none of our concern if the undertaker gets him.

When it requires four long, tedious years for a medical student to get a license to practice, it looks rather discouraging for the patient's future when these chiros, after a few weeks' course, are full-fledged practitioners and ready to "lay on the hands" for any disease from epilepsy and appendicitis to tetanus and phthisis.

The common sense and good judgment shown in the above editorial is commendable. This evident cooperation and mutual confidence between the press and the medical profession is gratifying and encouraging as an indication of satisfactory legislation in Oklahoma in the future.

A New Board of Health Bulletin.

The first number of the *Bulletin of the Alabama State Board of Health*, just received, is a well-printed pamphlet of twenty-four pages, containing a salutatory, setting forth the objects of the board in issuing the bulletin; a list of the state, county and municipal health officers; an explanation of the scheme of organization as it exists in Alabama, and a number of interesting short articles on the work of the bacteriologic and pathologic laboratory; vital and mortuary statistics; public

health laws, and a summary of the law regulating the practice of medicine in Alabama.

There is no state in which the public health authorities are in as close touch with the medical profession as in Alabama. In fact the State Medical Association is the State Board of Health, and the county associations constitute the county boards of health. The legislature of 1907 has supplied the means heretofore lacking for carrying out many of the plans of the state board.

The object of the bulletin, as announced in the first number, is to keep the members of the profession informed as to what the State Committee of Public Health and the State Board of Medical Examiners are doing and to bring all parts of the public health system of the state into close cooperation. The first number is most creditable, and additional issues will without doubt be equally interesting.

POSTGRADUATE COURSE FOR COUNTY SOCIETIES.

DR. JOHN H. BLACKBURN, DIRECTOR.
BOWLING GREEN, KENTUCKY.

[The Director will be glad to furnish further information and literature to any county society desiring to take up the course.]

Ninth Month.

GASTROENTERIC DISEASES OF INFANCY AND CHILDHOOD.

First Weekly Meeting.

Digestion in Infancy and Childhood.
Stomach, Anatomy and Physiology.
Intestine, Anatomy and Physiology.
Acute Gastric Indigestion.

Second Weekly Meeting.

Acute Gastritis.
Chronic Gastric Indigestion.
Acute Intestinal Indigestion.

Third Weekly Meeting.

Acute Gastroenteric Infection.
Etiology and Pathology.
Symptomatology.
Cholera Infantum.

Fourth Weekly Meeting.

Acute Ileocolitis.
Etiology and Pathology.
Symptoms.
Chronic Ileocolitis.

Monthly Meeting.

Artificial Feeding of Infants.
Acute Enterocolitis. Pathology and Treatment
Cholera Infantum.

FIRST WEEKLY MEETING.

DIGESTION IN INFANCY AND CHILDHOOD.

Stomach, Anatomy and Physiology.

Shape, size, position, musculature, at birth, at one year. Capacity, by months, up to one year. Gastric juice; constituents, reaction. Changes occurring in human milk, in cow's milk, duration of gastric digestion. Bactericidal action of gastric juice. Elements absorbed from stomach.

Intestine, Anatomy and Physiology.

Size, length, position (a) of small intestine, (b) of large intestine.

Intestinal Digestion: Changes in proteids, active agent. Carbohydrates at birth, six and twelve months. Changes in fats. Action of bile, of succus entericus. Elements, proportion of each, absorbed from small intestine. Absorption from large intestine.

Intestinal Bacteria: *Bacterium lactis aerogenes, Bacillus coli communis;* effect of each.

Feces: Color, consistency, odor, reaction, composition (a) of meconium, (b) milk feces.

Acute Gastric Indigestion.

Causes: Improper diet in quality and quantity, changes in diet, weaning. Depressing conditions, heat, cold, dentition, onset of acute infections.

Symptoms: Food stagnation, vomiting, pain, depression, stupor, temperature, weak, rapid pulse, diarrhea. Usual course. Prognosis.

Treatment: (a) Empty stomach, (b) secure rest to it. Stomach washing. Dietetics. Medicinal treatment.

Marriages

ROBERT B. HOPKINS, M.D., to Miss Christina Nelson, both of Milton, Del., May 2.

HOWARD K. HILL, M.D., to Miss Ruth Clay, both of Philadelphia, April 29.

GEORGE L. CHAPMAN, M.D., to Miss Mary J. Minor, both of Indianapolis, April 28.

EDGAR H. BRISCOE, M.D., to Miss Grace White, both of Carrollton, Mo., April 29.

GEORGE H. RILEY, M.D., Bloomdale, Ohio, to Miss Ella Green of Aurora, Ill., April 25.

ORLANDO H. PETTY, M.D., to Miss Marcia H. Mellersch, both of Philadelphia, April 18.

WRIGHT S. SUDLER, M.D., Baltimore, to Miss Marietta McClure, in Baltimore, May 2.

ALFRED C. BAXTER, M.D., Springfield, Ill., to Miss Ethel J. Mitchell of Beacon, Mich., April 15.

GEORGE M. FLEMING, M.D., Raton, N. M., to Mrs. Katherine A. White of Denver, Colo., April 30.

GROVE W. HARRIS, M.D., Ferguson, Iowa, to Miss Clara Bess Ketchum of Marshalltown, Iowa, April 29.

ANDREW WRAY BARKLEY, M.D., to Miss Olive Juanita Whirick, both of Allegheny, Pa., April 29.

ALEXANDER HENDERSON MCLEISH, M.D., Seattle, Wash., to Miss Adele Lawrie, at Tacoma, Wash., April 15.

WALTER W. ELLIS, M.D., Delaware City, Del., to Miss Mary Elizabeth Clark of Wilmington, Del., April 22.

RICHARD CHARLES MONAHAN, M.D., Butte, Mont., to Miss Marie Maguire of Ogden, Utah, at Salt Lake City, May 4.

GEORGE HUMBLEY FAY, M.D., East Auburn, Cal., to Miss Orenda Ward of Auburn, Cal., at Somerset Orchard, near Newcastle, Cal., May 1.

Deaths

Thomas Edgar Schumpert, M.D. University of Louisville, Medical Department, 1885; a member of the American Medical Association; formerly president of the Louisiana State Medical Society and Shreveport Medical Society; first vice-president of the Tri-State Medical Society of Arkansas, Louisiana and Texas; a member of the International Association of Railway Surgeons; proprietor of and surgeon to the Shreveport Sanitarium; for seven years surgeon in charge of the Shreveport Charity Hospital; surgeon to all the railways centering in Shreveport; a member of the Louisiana State Board of Health and one of the most prominent surgeons of the state; died at his home in Shreveport, May 16, from hemorrhage due to intestinal perforation in the course of an attack of typhoid fever.

Martin L. Adams, M.D. Vanderbilt University, Medical Department, Nashville, Tenn., 1881; a member of the Washington State Medical Association and King County Medical Society; for 10 years health officer of Ballard, and then for 10 years assistant health officer of Seattle, Wash.; one of the best-known practitioners of Ballard; died at the Seattle General Hospital, May 1, from septicemia contracted while treating a patient a week before, aged 53.

Herbert Henry Lyons, M.D. Medical School of Harvard University, Boston, 1881; a member of the American Medical Association, Fitchburg (Mass.) Society for Medical Improvement and Fitchburg Medical Club; physician at the Worcester County Jail; United States pension examining surgeon; city physician and a member of the staff of the Burbank Hospital; died at his home in Fitchburg, May 6, from pneumonia, aged 52.

Edward Dodd, M.D. New York University Medical College, New York City, 1862; who served in the Army during the Civil War as an assistant surgeon, and was obliged to resign on account of ill health, and never afterward practiced, but resided at North Babylon, N. Y.; died in the Jackson Health Resort, Dansville, N. Y., April 27, from chronic nephritis, after an illness of six months, aged 68.

Charles Pruden Alling, M.D. Western Homeopathic Medical College, Cleveland, 1862; assistant surgeon during the Civil War; formerly a member of the board of health of Dunkirk, N. Y., and city physician of Buffalo; afterward a practitioner of Bradford, Pa.; died at his home in Dunkirk, N. Y., May 8, after a short illness, aged 70.

Charles W. Behm, M.D. Homeopathic College, University of Michigan, Ann Arbor, 1892; Northwestern University Medical School, Chicago, 1900; chief of the bureau of disinfection, Chicago health department; a member of the Illinois State Medical Society; died at his home in Chicago, May 16, from cancer of the liver, aged 38.

Martin Frederick Johnson Cameron, M.D. Baltimore University School of Medicine, 1890; formerly of Oil City, Pa., and said to have been a member of the faculty of Milwaukee Medical College for several years; died suddenly, May 3, at his office in Westernport, Md., from pneumonia, aged 39.

Louis De Barth Kuhn, M.D. University of Pennsylvania. Department of Medicine, Philadelphia, 1854; formerly in the Marine-Hospital Service and later a practitioner of Reading, Pa.; a member of the staff of St. Mary's Hospital, Brooklyn, N. Y.; died at his home in that city, May 7, aged 78.

Thomas Lewis Edwards, M.D. Jefferson Medical College, Philadelphia, 1894; a member of the State Medical Society of Wisconsin and Grant County Medical Society; for many years town health officer; died at his home in Cuba City, March 26, from cancer of the stomach, aged 43.

David M. Ray, M.D. University of Louisville, Medical Department, 1867; a member of the State Medical Association of Texas and Grayson County Medical Society; assistant surgeon in the Confederate service during the Civil War; died at his home in Whitewright, May 7, aged 68.

Henry C. Markel, M.D. Jefferson Medical College, Philadelphia, 1902; a member of the Medical Society of the State of Pennsylvania and York County Medical Society; died at his home in Codorus, Pa., May 8, from pleuro-pneumonia, after an illness of two weeks, aged 30.

Hiram J. Rowell, Jr., M.D. Medico-Chirurgical College of Kansas City, Mo., 1900; a member of the New Mexico Medical Association and Maricopa County Medical Society; physician for the Grant Bros. Construction Company on the Belen cut-off; died at Belen, May 7, aged 30.

James F. Draper, M.D. Geneva (N. Y.) Medical College, 1846; a member of the medical societies of the State of New York and County of Ontario; of Victor, N. Y.; died at the home of his son in Kansas City, Mo., May 4, after an illness of five months, aged 82.

James W. Phillips, M.D. University of Missouri, Medical Department, St. Louis; a veteran of the Mexican and Civil wars; a member of the twenty-sixth and twenty-seventh General Assemblies of Illinois; died at his home in Oklahoma City, Okla., April 18, aged 81.

Thomas Henry Abbott, M.D. Medical College of the State of South Carolina, Charleston, 1855; a member of the South Carolina Medical Association and Dorchester County Medical Society; died at his home in St .George, S. C., May 4, after a long illness, aged 75.

Merritt Hitt, M.D. University of Southern California College of Medicine, Los Angeles, 1890; a member of the American Medical Association and formerly a practitioner of Chicago; died at his home in Los Angeles, Cal., May 10, after an illness of one year, aged 40.

Tisdale E. Linn, M.D. Pulte Medical College, Cincinnati, 1888; and later demonstrator of anatomy and professor of orthopedic surgery in that institution; for 15 years a resident of Asheville, N. C.; died at his home, May 4, after a long illness, aged 39.

Columbus Nathan Udell, M.D. Keokuk Medical College,; Kentucky School of Medicine, Louisville, 1868; formerly of Blakesburg, Iowa; died at his home in Valparaiso, Ind., April 29, a week after an operation for urethral stricture, aged 66.

George Schlereth, M.D. College of Physicans and Surgeons in the City of New York, 1874; for several years house physician at St. Francis' Hospital, New York City; died from pneumonia at his home in New Rochelle, N. Y., May 6, aged 63.

John H. Ruddell, M.D. University of Georgia Medical Department, Augusta, 1858; surgeon of the Seventh Georgia Cavalry, C. S. A., throughout the Civil War; died at his home in Augusta, Ga., May 7, after an illness of six weeks, aged 70.

Robert R. McCandliss, M.D. Miami Medical College, Cincinnati, 1866; surgeon of the One Hundred and Tenth Ohio Volunteer Infantry during the Civil War; for 37 years a resident of Emporia, Kan.; died at his home, May 5, aged 81.

Thomas Withrow Wier, M.D. Medical College of the State of South Carolina, Charleston, 1852; a Confederate veteran; died at his home in Reno, S. C., April 26, from the effects of influenza, after an illness of six months, aged 77.

Joseph W. Clift, M.D. Harvard University Medical School, Boston, 1862; a surgeon during the Civil War and a member of the Fortieth Congress; died May 2, at his home, "Cliftwood," near Rock River Falls, N. Y., aged 69.

Thomas S. Harper, M.D. University of Pennsylvania, Department of Medicine, Philadelphia, 1843; one of the founders of Howard Hospital, Philadelphia; died at his home in that city, April 27, after a long illness, aged 87.

Edgar Theodore Billmyer, M.D. Physio-Medical College of Cincinnati, 1865; for several years school trustee; died at his home in Cherry Valley, Ill., May 9, from senile debility, after an illness of several months, aged 75.

Albert Bassett Smith, M.D. Medical College of Ohio, Medical Department University of Cincinnati, 1878; formerly of Des Moines, Iowa; died at his home in Norwalk, Cal., recently, aged 73.

Daniel Joseph O'Sullivan, M.D. Bellevue Hospital Medical College, New York City, 1889; died at his home in Lawrence, Mass., May 8, after a long illness, aged 50.

Gustavus A. Henrich, M.D. Marion-Sims College of Medicine, St. Louis, 1899; died at his home in New Athens, Ill., May 9, from throat disease, aged 32.

Thomas James McCorkle, M.D. Medical College of Alabama, Mobile, 1883; died at his country home near Faunsdale, May 4, after an illness of two days.

John Wills, M.D. Cleveland Medical College, Medical Department of Western Reserve College, Cleveland, 1863; of Beecher City, Ill.; died May 3, aged 84.

Foster Walter Greenhalge (Certificate, Tenn.), 1889; for more than 70 years a resident of Nashville; died recently.

Society Proceedings

COMING MEETINGS.

AMERICAN MEDICAL ASSOCIATION, CHICAGO, JUNE 2-5.

Rhode Island Medical Society, Providence, May 26.
Connecticut State Medical Society, New Haven, May 27-28.
American Pediatric Society, Delaware Water Gap, May 26-28.
American Gynecological Society, Philadelphia, May 26.
American Laryn., Rhin. and Otol. Society, Pittsburg, May 28-30.
American Academy of Medicine, Chicago, May 30-June 1.
American Association of Medical Examiners, Chicago, June 1-2.
American Gastro-Enterological Association, Chicago, June 1-2.
American Proctologic Society, Chicago, June 1.
American Urological Association, Chicago, June 1.
Nat. Confed. of State Med. Examining, etc., Board, Chicago, June 1.
American Orthopedic Association, Chicago, June 4-6.
Massachusetts Medical Society, Boston, June 9-10.
American Climatological Association, Boston, June 9-11.
Maine Medical Association, Bangor, June 10-11.
Indiana State Medical Association, French Lick, June 18-19.
Medical Society of New Jersey, Cape May, June 18-20.
Medical Society of State of North Carolina, Winston, June 16-19.
Michigan State Medical Society, Manistee, June 24-25.
State Medical Society of Wisconsin, Milwaukee, June 24-26.

AMERICAN SURGICAL ASSOCIATION.

Meeting held at Richmond, Va., May 4-6, 1908.

The President, DR. WILLIAM H. CARMALT, in the Chair.

Officers Elected.

The following officers were elected for the ensuing year: President, Dr. C. B. G. DeNancrède, Ann Arbor, Mich.; vice-presidents, Drs. A. G. Gerster, New York City, Leonard Freeman, Denver; secretary, Dr. Robert G. LeConte, Philadelphia; treasurer, Dr. Charles A. Powers, Denver; recorder, Dr. Richard H. Harte, Philadelphia.

Philadelphia was selected as the next meeting place.

Advances in Pathologic Anatomy.

DR. W. H. CARMALT, Pittsburg, in his address as president, referred to the advance in medical science, particularly in pathologic anatomy, during the last half century, brought about especially by the greater facilities of surgical technic. The discoveries of anesthesia and asepsis paved the way to early operations and thereby at once opened a new field, giving the opportunity to early observations of pathologic processes. Instead of operations being done as a last resort to obviate impending death, they are now largely undertaken for distinctly therapeutic purposes. The local character of the initial stage of tuberculosis was cited and its transference from internal medicine to surgery remarked on; tuberculous peritonitis was cited as a striking instance. The knowledge gained of the internal secretions as shown in operations on the thyroid gland has been obtained almost exclusively by surgeons. The recent investigations on the parathyroids are instances of physiologic and pathologic advancement obtained altogether by surgical activity. The relations of pancreatitis to gall-bladder diseases and the pathology of chronic diverticulitis of the sigmoid are further instances of the debts of the pathologic anatomist to the surgeon. The establishment of fully equipped pathologic laboratories in hospitals was strongly urged and the advantages to the hospital of clinical teaching in its wards insisted on.

Reminiscences of the Early Days of the American Surgical Association, by One of Its Founders.

DR. J. EWING MEARS, Philadelphia, spoke of the beginning of the association and placed on record some of the notable occurrences of its existence. Reference was made to its influence on surgical science in this country and of its development in the future. An account was given of the early meetings of the association and a tribute paid to its founder, Dr. Samuel D. Gross. With Drs. P. S. Conner, W. W. Keen and Solon Marks, Dr. Mears is the fourth of the survivors of the original fellows of the association. An appreciation was given of Dr. J. Collins Warren. Dr. Mears considers it an open question whether or not a fixed place of meeting would not contribute to a more serious execution of the scientific work of the association, and suggested that the selection of a permanent place of meeting might result in the erection in the city of Washington of a building suitable for this purpose. This would also provide quarters for the future accumulation of surplus volumes of the transactions and the archives of the association. A notable event which had its origin in the association was the movement resulting in the foundation of the Congress of American Physicians and Surgeons carried forward by Dr. Claudius H. Mastin. Another event of special interest was the erection of a bronze statue of the founder of the association in the city of Washington.

DISCUSSION.

DR. MAURICE H. RICHARDSON, Boston, urged that in the discussion of the scientific papers the unfavorable as well as the favorable side should be given.

DR. A. VANDER VEER, Albany, N. Y., agreed with Dr. Mears that no other man could have done the work executed by Dr. Samuel D. Gross in the organization of the American Surgical Association.

Surgery of the Gasserian Ganglion.

DR. STEPHEN H. WEEKS, Portland, Me., stated that the operation for the removal of the Gasserian ganglion as a primary operation for the relief of tic douloureux is not justifiable, but that the extracranial operations on the branches of the fifth cranial nerve should be first made. These almost invariably give relief which is not infrequently permanent. The osteoplastic flap in the temporal region called the Hartley-Krause operation is the one Dr. Weeks employs. A pint of normal salt solution with an ounce of brandy should be injected into the rectum about half an hour before the operation commences. In all his operations on the brain he has used ether. In the operation the second and third divisions of the nerve are put on the stretch with the blunt hook and divided close to the foramen rotundum and foramen ovale respectively. He dissects them back to the ganglion and lifts the ganglion from its bed by making traction on the inferior maxillary nerve, having first divided the superior maxillary nerve and removed the parts of the ganglion corresponding to these various divisions, leaving untouched the first division, with its corresponding portion of the ganglion. If the first division of the nerve and its corresponding portion of the ganglion be retained there will be no danger to the eye, and the only protection needed to the eye will be a simple compress and bandage. Sometimes the dura mater is considerably torn and the cerebrospinal fluid escapes during the manipulation of the brain. Dr. Weeks has seen no bad results follow this. On the contrary, it has seemed to be an advantage, as it allows the lifting of the temporosphenoidal lobe more freely from the middle fossa, giving a better view of the ganglion and its nerves. In his last case, when the dura was dissected from the ganglion, though quite a little brain matter escaped, no unpleasant symptoms followed. The mortality of the operation thus far in his hands has been *nil*.

DISCUSSION.

DR. A. VANDER VEER, Albany, N. Y., said that several times he has done successfully the operation for removal of the Gasserian ganglion for trifacial neuralgia. Hemorrhage has always been to him an important element in this operation.

DR. S. J. MIXTER, Boston, removes the Gasserian ganglion in two stages. While the method is not so brilliant as the one-stage operation, he thinks it better for the patient.

DR. S. H. WEEKS said that he had operated four times and all the patients had recovered. In one case in which at the time of operation a small portion of the brain escaped nothing untoward followed. Later, since the writing of his paper, the patient reported that she had some difficulty in pronouncing certain names.

Acute, General Perforative Peritonitis.

DR. JOHN B. MURPHY, Chicago, desired it to be understood that in his paper he referred to free, spreading, perforative peritonitis. He included in his paper only such cases as resulted (a) from direct communications of the alimentary canal into the free peritoneal cavity; (b) from perforations of the appendix with primary retention of the infective material in a circumscribed zone and subsequent rupture into the free peritoneal cavity, so that there was a communication from the intestine, through the appendix, and through the abscess in the free cavity. He did not include any cases of peritonitis with circumscribed abscess not communicating with the free peritoneal cavity, no matter how much pus was present in the general cavity. The cases included in the series cover a period of a little over five years since instituting his present plan of treatment, and practically all of them have been managed in identically the same way. The patients have all been operated on in public institutions, the records of which are open for inspection. There were 48 cases in all: 2 were gastric perforations, 1 duodenal, 4 typhoid, 41 appendiceal. The sixteenth and forty-sixth patients died; the first from a double pneumonia on the sixth day after the operation; the second from a mechanical ileus and strangulation of the intestine around the omentum which was adherent to an old hernial opening. There were no deaths from peritonitis *per se*. When the plan of treatment was first followed out it was believed that the recoveries were coincident. Now, however, the number is so large and the results so uniform that it must be concluded that they are the sequence of the treatment. Dr. Murphy believes that the results of the future will be uniformly good. This estimate involves the assumption that the medical profession will make early diagnoses, insist on early surgical intervention, limit its surgical procedures to the least possible handling and trauma consistent with closure of the opening and relief of pus tension, limit the anesthesia, shorten the operation, insure the continual absence of pus tension, eliminate the sepsis already in the blood, restore the blood pressure and inhibit septic absorption by position. The most important of these elements is the limitation of intestinal manipulation and exposure of the abdominal contents.

DISCUSSION.

DR. JOHN B. DEAVER, Philadelphia, emphasized the necessity of attacking the condition early and of doing as little manipulation as possible. He has no hesitancy in reopening the abdomen for obstruction. In ten consecutive cases all the patients recovered. Short anesthesia he regards as important. He uses eserin reinforced with strychnin. In some cases there has been slight cardiac disturbance from the eserin. He has no hesitation in setting his patients up in bed. Concerning the giving of morphin, he "does not know what a hypodermic syringe looks like for the purpose of giving morphin."

DR. A. G. GERSTER, New York, within the last two years in his hospital service has abandoned methods of irrigation and mopping formerly employed and has followed the plan laid down by Dr. Murphy, with the Fowler position, and the results have been markedly improved. He has used eserin in the treatment of tympanitis following diffuse peritonitis, but is not so enthusiastic concerning the results as others are. Contributory to the improved results in the treatment of general peritonitis are the facts of improved technic, early recognition of cases and the inclusion in the group of general peritonitis of cases easily cured by proper treatment. He described a simple modification of the enemata by which the irrigating rectal injection is carried high into the rectum and after being allowed to escape, repeated. Peristalsis is thus accomplished and large quantities of gas allowed to escape. He finds it more effective than eserin and being a mechanical procedure, may be safely left in the hands of the nurse. He thinks Dr. Deaver's stand in regard to the giving of morphin an extreme one. While the excessive administration of morphin is wrong, the entire withholding of it he regards as unnecessary and cruel.

DR. ARTHUR D. BEVAN, Chicago, in some cases of fluid in the peritoneal cavity employs a female glass catheter, using it as a pipette, taking up the pus not only in the cul-de-sac, but in other directions. Many cases in which there is free pus and cases of duodenal ulcer in which operation is done early and in which there is a considerable amount of fluid, are regarded by him as cases in which general peritonitis has been prevented by early interference, and not as cases of general peritonitis. This obviously has a determining influence on statistics. He has found nitrous oxid gas of much value as an anesthetic. Frequently the giving of either ether or chloroform in these cases turns the scale between recovery and death. He disagrees with Dr. Murphy regarding the danger of washing out the peritoneal cavity, believing that irrigation is good surgery and that it can be done without loss of time. In the matter of drainage he favors the large cigarette drains in preference to rubber tubing.

DR. DUDLEY P. ALLEN, Cleveland, agrees with Dr. Bevan that the washing out of septic material from the peritoneal cavity is a valuable aid in treatment. He places the patient on the side when draining, to have the aid of gravity and limits the washing to the area involved.

DR. JOSEPH RANSOHOFF, Cincinnati, fears that if the dictum went out to the general profession that patients with free general peritonitis recover in the proportion of 44 to 3, the average practitioner would delay in seeking surgical aid with the thought in mind that if the patient did get worse he had 44 out of 47 chances of getting well. He asked Dr. Murphy in closing to state in how many of the 47 cases the operation was done after four or five days subsequent to the development of symptoms of general peritonitis and in how many cases he operated in which death seemed imminent. Dr. Ransohoff called attention to the general use of the word peritonitis, suggesting that but few understand by the term exactly the same thing. Free fluid in the peritoneum is not necessarily infected and its presence should not be regarded as evidence of peritonitis until cultures show infection.

DR. A. T. BRISTOW, Brooklyn, showed a device which regulates the passage of the fluid to about 90 drops a minute in rectal irrigation.

DR. GEORGE E. ARMSTRONG, Montreal, has followed the teaching of Dr. Murphy in the treatment of peritonitis with marked improvement in results. He attaches great importance to induced drainage by rectal injection in the sitting position. In two cases recently under his care, with persistent vomiting and with swelling in the epigastric region, he, thinking the condition due to retromesenteric pressure on the transverse duodenum, reversed the position of the patients from the Fowler to the Trendelenburg with satisfactory results.

DR. JOHN C. OLIVER, Cincinnati, inquired of Dr. Murphy whether his method of treatment had been applied to gunshot wounds of the abdomen, especially to cases in which injury had been inflicted several hours before operation, as while there might be an honest difference of opinion concerning the forms of peritonitis following appendicitis or perforated gastric or duodenal ulcer, all agree that the form of peritonitis following gunshot wounds is apt to be general.

DR. JAMES E. MOORE, Minneapolis, protested against the dictum laid down by Dr. Deaver that abdominal patients should be deprived of morphin. Concerning this question he said his position was like that of the old man who, when he came to die, told his son he knew honesty was the best policy because he had tried both ways. In the beginning of his abdominal surgery he withheld morphin, but after having had an operation himself he insisted on having morphin. He has since given it to his patients and his results are improved.

DR. MAURICE H. RICHARDSON, Boston, said that peritonitis still remains the most important disease with which he has to deal, causing more deaths in his own cases, those of his colleagues and in literature than any other disease. He referred to the evolution in treatment from the time when a man's abdomen was made to look like a colander to the present, when a small incision and very little disturbance of the abdominal viscera are the rule. In his hospital service he does not know that they use Dr. Murphy's method exactly, though they do not disturb things very much. They do not wash out. They do not wipe extensively. They do not make multiple incisions. They depend on rectal lavage, and rather than have patients toss all night, they give small doses of morphin.

DR. JOHN B. ROBERTS, Philadelphia, said that Dr. Murphy's paper disproved effectually the oft-repeated statements of operators who for years have contended that all cases of perforative appendicitis and similar lesions should be treated by an insistent search for the offending organ. Also, it has shown effectively their error in believing that patients after abdominal section or with peritonitis from perforation should be tortured by persistent immobility in the dorsal recumbent position, by absolute deprivation of water, and by the anteoperative and postoperative withholding of morphin and pain-obtunding drugs. Dr. Murphy's results thus justified those who for twenty years have contended against such surgery.

DR. RICHARD H. HARTE, Philadelphia, thinks it obvious that no hard and fast rules can be laid down in the treatment of peritonitis, each patient being treated rather according to the conditions found. He thinks that error sometimes exists in the use of rectal irrigation in not having the tube of sufficient size and held at a proper height to favor the ready flow of the fluid toward the bowel. He described a frame made to support the weight of the patient by the buttocks and thighs as a satisfactory method of maintaining the Fowler position. He approves the plan of having patients sit up even in the typhoid perforation cases in which the perforation occurs at the end of a long illness. He favors gauze for drainage rather than tubes.

DR. M. L. HARRIS, Chicago, has tried repeatedly the principles laid down by Dr. Murphy, and his patients get well. Relative to the inquiry of Dr. Allen concerning gunshot wounds of the abdomen, he stated that he had had within a few months seventeen cases of these wounds involving the intestines in which there were from one to eight perforations. Every patient was operated on early, all were drained and all recovered.

MR. G. B. A. MOYNIHAN, Leeds, England, said that at the Leeds Infirmary they grouped their cases according to those occurring previous to their having learned of Dr. Murphy's

treatment, and those occurring subsequently. Those of the former group they had been accustomed to lose; those of the latter usually recovered. Only in insignificant particulars do they vary from the method laid down by Dr. Murphy. They operate in the least possible time, and in drainage employ what they term the split tube. This is a large-sized rubber tube split along the wall of one side, which when in position drains along its whole length, and can collapse if pressure from tissue occurs. He takes issue with Dr. Deaver in the matter of morphin, a small dose being given in every case before the patient leaves the operating table. No house physician, however, is allowed to repeat the dose without instruction from his superior officer. They usually do not employ general anesthesia, but operate with lumbar anesthesia. An advantage of this method is the passing of abundant quantities of flatus. This makes the operation distinctly easier. The patients are placed in bed in an exaggerated Fowler position. The position is maintained by a bolster beneath the buttocks and thighs attached by straps to the head of the bed. No restraint is put on the amount of water the patient desires to take, for the nurse leaves a vessel containing water on the table beside the bed.

DR. J. B. MURPHY emphasized his positive conviction that every patient with general perforative peritonitis ought to get well if properly handled. Such handling, however, involves timely and intelligent action, and the following of definite lines to results. Answering Dr. Ransohoff's question, he said he did not have any cases four or five days old, and trusted he never would have. All of his cases were under forty hours; all cases should be under twenty-four hours, and under twelve would be better. When surgeons appreciate this fact the same results as seen in early operations for appendicitis will obtain in peritonitis. Dr. Murphy does not make the distinction made by Dr. Bevan between cases with intestinal leakage without peritoneal inflammation and those with intestinal leakage with peritoneal inflammation. The presence of a yellow creamy fluid in the peritoneum does not constitute peritonitis. There must be a perforation of the intestinal canal and a direct communication from the lumen of the canal into the free peritoneal cavity. The free yellow creamy fluid is often a conservative fluid carrying away infective organisms. The short duration of the anesthesia as brought out by Dr. Bevan he regards as important and the operation under nitrous oxid is to be desired. The forty-eight cases reported included every case of general suppurative perforating peritonitis coming under his observation and were not selected cases.

(To be continued.)

OHIO STATE MEDICAL ASSOCIATION.

Annual Meeting, held in Columbus, May 6-8, 1908.

The President, DR. CHARLES L. BONIFIELD, Cincinnati, in the Chair.

The House of Delegates met at 11 a. m., Wednesday, May 6, 1908. Thirty-nine delegates responded to the roll call. Resolutions offered by Dr. Brand of Toledo, creating a Section on Hygiene and Sanitary Science, were referred to the Council. On motion, a committee of three was appointed by the chairman to act as a reference committee on amendments to the constitution and by-laws. The Association of Assistant Physicians of Ohio State Hospitals asked for the organization of a section on mental and nervous diseases. The Council approved this plan and appointed Dr. Brooks F. Beebe, Cincinnati, chairman, and Dr. S. P. Fetter, Gallipolis, secretary.

The treasurer's report showed a balance on hand Jan. 1, 1908, of $154.00, with total receipts of $7,787.97, and total disbursements of $7,633.59.

Legislation of the Year.

The report of the legislative committee showed that during the past session of the state legislature fourteen desirable bills had been enacted and six undesirable bills had been defeated. No undesirable bill was enacted; six good measures were lost. The bills enacted were as follows:

To regulate maternity boarding houses and lying-in hospitals; to authorize the State Board of Health to regulate the disposition of sewage and public water supplies and to protect streams against pollution; to provide county hospitals for patients suffering from tuberculosis; to authorize municipal corporations to regulate the use, control and maintenance of buildings used for human habitations; to provide against the misbranding and adulteration of food and drugs; to establish a bureau of vital statistics; to provide for the registration of all births and deaths; to restrict the selling and giving away of cocain; to prohibit the feeding of dairy slops to dairy cattle; to provide Pasteur treatment for rabies produced by a cat; to provide for county detention hospitals for the insane; to provide for a public comfort station in the state house grounds; to revise and consolidate the laws relating to the appointment, powers and duty of the State Board of Health, State Board of Registration of Ohio, Board of Pharmacy and State Board of Embalming Examiners; to petition Congress for the establishment of a national bureau of health and to provide for county hospitals. The report of the committee concluded with a discussion of the principles underlying the state regulation of the practice of medicine.

On motion, the house voted that the expenses of the secretary to the meeting of the American Medical Association in Chicago in June be paid from the general funds of the state association. A communication from the General Secretary of the American Medical Association regarding the organization of branch associations was read. On motion, such action was disapproved at this time.

Officers Elected.

The election of officers resulted as follows: President, Dr. D. R. Silver, Sidney; vice-presidents, F. F. Lawrence, Columbus; J. Eakins, Gallipolis; A. B. Walker, Canton; Harry S. Noble, St. Mary's; councilor of the fifth district, Clyde E. Ford, Cleveland; councilor of the tenth district, C. D. Mills, Marysville; member of the national legislative committee, B. R. McClellan, Xenia; committee on public policy and legislation; Dr. J. W. Clemmer, Columbus; G. H. Matson, Columbus, and W. H. Snyder, Toledo; committee on publication, C. F. Clark, Columbus, and C. S. Hamilton, Columbus.

Cincinnati was selected as the place of meeting for 1908, the time of meeting being left to the Council.

Address of Welcome.

The Ohio State Medical Association met in Memorial Hall, Wednesday morning, and was welcomed by Dr. Wells Teachnor, president of the Columbus Academy of Medicine, addressing the meeting in behalf of the local society and the public medical institutions of the city.

DR. WELLS TEACHNOR said that, from a membership of 650 members in 1906, the medical society of the state has now about 4,500 members, and out of the seventy-two Ohio counties, Hocking County is the only one without a medical society. He strongly urged the establishment of a literary bureau for the distribution of literature to the laity in pamphlet form, answering the vicious suggestions of the faker.

President's Address.

DR. CHARLES L. BONIFIELD said that it was to be regretted that so few medical men were able to serve as legislators. Reasons for physicians avoiding politics are even more fancied than real.

Prognosis—Address on Medicine.

DR. F. FORCHEIMER, Columbus, said that prognosis is the most difficult branch of practical medicine, involving a human element as well as a knowledge of all previous discoveries, but as based on the present state of science should be more accurate than ever before. We have, however, allowed ourselves to be carried off our feet by statistics, notwithstanding all know that there are many factors which can not be calculated by mathematics. There has been great progress in the efficiency of treatment and faith in therapeutic measures

makes for greater success in their application to man. Prognosis should not be based on one symptom only. Great care should be taken not to make the prognosis, even in unfavorable cases, unnecessarily gloomy. The prognosis should be properly expressed; the patient should be told the truth and enough of it to leave the responsibility with him, but not enough to do him harm. Still greater care is needed in favorable prognoses, as if a patient dies without warning it is always counted up not only against the individual physician, but against the whole profession.

The Diagnosis of Tumors of the Spinal Cord.

DR. W. B. LAFFER, Cleveland, said that meningeal tumors are the most important; there are ten malignant growths to one benign. Single tumors are chiefly situated in the dorsal region and laterally, two intradural to one extradural, the former being usually easily separated because encapsulated. Slow progression of the spinal lesion upward is suggestive of tumor, especially of glioma. In intramedullary growths neuralgia-like pain is absent, but perversions of sensation are seen. Inflammatory edema may cause symptoms leading to localization at the wrong level.

DISCUSSION.

DR. T. A. MILLER, Toledo, said that before operating it is important to determine the actual level of the tumor. Heretofore, when paralyses have not been present, one could only rely on objective anesthesia, which is not always entirely reliable, because dependent to an extent on the statements of the patient. Pilocarpin may be used hypodermically to bring on sweating, which it will do at all levels above the lesion. Below the lesion the sweating will not take place. The test is made by covering the patient with bed-clothes raised on a frame, and after thirty minutes one can determine the limitations of the sweating. Experience has recorded this as more accurate than the anesthesia tests.

The Relative Indications for Cesarean Section.

DR. CHARLES N. SMITH, Toledo, said that Cesarean section should not be made to bear the brunt of maternal deaths attributable to previous mutilation, exhaustion and infection, but should be judged by its success when used as an operation of first resort. He presented statistics from 15,611 cases of labor, which showed a fetal mortality from induced labor, 39 per cent.; high forceps, 33 per cent.; ordinary forceps, 14 per cent.; version, 40 per cent.; and craniotomy, 100 per cent. By these measures the unborn child is not given a fair chance. Cesarean section insures the safe delivery of every child which was alive at the beginning of the operation, as well as freedom from injury by pressure of forceps, or a narrow birth canal, or by arrest of circulation. Its mortality and morbidity rate are lower for both mother and child than those of any other obstetric operation. The operation should be performed prior to or at the onset of labor. In placenta prævia with dangerous hemorrhage before the onset of labor, Cesarean section will probably find its broadest field for usefulness. It offers to both mother and child in eclampsia a greater promise than any other obstetric operation.

DISCUSSION.

DR. R. E. SPEELE, Cleveland, said that he did not agree that it is always possible to secure a living child when the child is living at the beginning of the operation. Neither did he agree with the speaker in the latter's statement that rapid delivery was necessary to control eclampsia, as this would leave the large number of postpartum eclampsias unaccounted for. He would remove the individual from the dangers of eclamptic fever for the same reason he would remove a splinter from the hand of a man that was septic—because it is the starting point of the trouble. Vaginal section, if the child is not too large, will succeed this operation. Decision for Cesarean section depends not only on estimating the size of the pelvis, but the size of the fetus as well. Until this becomes a matter of scientific exactitude it will not obtain its proper place in the medical world.

DR. J. U. BARNHILL, Columbus, defended the dependence on statistics given by the essayist. Comparing craniotomy with Cesarean section, he said the former not only sacrifices the child, but when the pelvis is small, there is danger of doing damage to the soft parts, and the chances of sepsis are almost infinitely greater than in Cesarean section.

Sciatic Pain as an Orthopedic Symptom.

DR. A. H. FREIBERG, Cincinnati, called attention to the considerable number of cases in which chronic sciatica is due to pressure on the nerve either at the intervertebral foramina or at the sacroiliac joint. Such cases could be promptly relieved by surgical treatment.

DR. W. G. STERN, Cleveland, said that a large number of laborers, who meet with severe trauma of the back, will in a short time complain not only of backache, but of sciatica. If we but consider the points the doctor has brought out, we can relieve the patient of his physical suffering and his mental distress.

DR. FREIBERG said that many of these lesions are of traumatic origin, but by no means all of them. The conditions are by no means hopeless, but can be given considerable relief if diagnosis is made early and proper treatment given.

The Spread of Trachoma in Ohio.

DR. W. H. SNYDER, Toledo, said that this disease is spreading in consequence of the influx of a foreign population. Health boards should declare it a dangerous disease, and the expert examination of the eyes of school-children should be provided for. Trachoma clinics should be established and every possible means employed to prevent the spread of the disease. Half-way measures are of no avail.

DISCUSSION.

DR. W. W. BRAND, Toledo, said that in Toledo this disease is confined chiefly to the Bulgarian and Hungarian element but in a short time it will affect the other foreign settlements of the city, through the people of the different races employed in the same factory. Careful supervision should be made by the state, and it is due to the physicians of the state that they should have trained sanitarians or trained hygienists to study these things, rather than the usual political appointee.

DR. SNYDER said that the general spread of the infection among school-children will entail an enormous money loss to this state, and a dollar spent now would save a hundred that will be spent later. Germany has spent millions on this account; England, France, Russia—all have spent and are spending enormous amounts. Trachoma causes sufficient blindness to unfit the victim for lucrative work, and this country will most assuredly have to fight this later, as they are doing in Germany.

Medical and Surgical Treatment of Exophthalmic Goiter.

DR. FRANK WARNER, Columbus, said that, while the pathology of this disease is not clearly understood, it seems difficult not to conclude that the thyroid gland is the cause of the exophthalmos. Medical treatment should be tried for a short time at least before turning the case over to the surgeon. If rest, diet, drugs, external applications, and, finally, the serum treatment, produce no improvement, surgical measures are appropriate. It is inadvisable to operate at the height of the disease, but in patients in fairly good condition, the half of the gland most enlarged with the isthmus should be removed, taking especial care to prevent hemorrhage. The serum of Beebe should not be pushed too far lest the activity of the gland be reduced too much. To secure the best results the operation should not be one of last resort.

DISCUSSION.

DR. J. P. SAWYER, Cleveland, said that he radically disagreed with the essayist. Both exophthalmos and goiter are absolutely non-essential in the disease. The tachycardia is found when looked for, and it should be the routine examination for every patient that comes into the office, being far more important than looking at the tongue and taking the pulse. Tremor and tachycardia, paroxysmal as well as continual, should be sought for. It is prevalent to a degree of which few have any suspicion until this routine examination is made.

In an astounding proportion of patients there is but slight exophthalmos. In the last 600 cases examined by this speaker, he said he had found 337 showing tremor, tachycardia, and most of them a slight degree of the ocular sign, and goiter. Operative treatment for this condition is to be undertaken with impunity only by the very few. The Mayos are largely responsible for its use in this country. It is not an operation that can be done with safety. The speaker said he had not yet advised a single case to go to operation. Four patients who had been operated on under other advice had died, and it was not for want of skilful operators. A patient with greatly enlarged thyroid who had been advised to have an operation, had by him been treated by other measures, and is now well. There is as much careful work to be done in the careful medical treatment of this disease as in typhoid or scarlet fever, nor is Beebe's serum the only thing. This is valuable, but subject to some difficulties from the fact that there are strains, and it is difficult to pick out which particular serum to use in a given case. The essential thing to remember is that this is a vasomotor disturbance; it means blood pressure increasing the beating of the heart, causes a sweating and vomiting, and in cases of mental depression gives psychoses—people practically beside themselves and not responsible for many of their actions.

Much value should be placed on rest. Mental worry should be avoided. Vasomotor control bears a relation to the humidity of the atmosphere. There is an unconscious perspiration going on all the time, and if the humidity increases 90, 95 or 100 per cent these cases will have a very serious time. The hint is to send the patient to a dry climate. The speaker had seen patients sent to climates where the humidity was 20 to 30, or as low as 5, make decided improvement. Galvanism has value if correctly applied, that is, directly to the thyroid. The faradic and static currents actually do harm. With galvanism he usually uses iodin, the marked effect of which can be seen on the skin.

DR. G. H. BAKER, Cleveland, said that the oculist had occasion to see many of these cases, and the only deaths he had ever known of were those which had occurred on the surgeon's table. The tendency is to recover in from one to five years, and he questioned whether it is right and fair to order patients to an operation. Nearly all of them have suffered some mental shock. A large majority of them have been disappointed in love, and marriage has cured them! If a marriage does not cure in some of these cases, perhaps divorce will. It is a question of mental rest. In the most aggravated cases where we are obliged to put them to bed to prevent injury to the cornea, they recover. Dr. Baker thought this was what accounted for the cure in operations—they were put to bed.

DR. C. A. HOWELL, Columbus, in behalf of the operative treatment, said that thyroid cases, or cases of Graves' disease, should be chosen for operation as one would choose appendicitis cases for operation. As Ochsner has said, "Some cases are too early for an early operation, and some too late for a late operation." It would be as wrong to operate on a patient with a large thyroid, and pulse at 160, in an acute stage, as it would be to operate on a patient with acute appendicitis and pulse at 160. The patient should be put to bed and given Beebe's serum. There should not be a drop of blood spilt during an operation for exophthalmic goiter. The patient should not know that he is to be operated on that morning, otherwise the psychic effect is so great as to throw the heart to 120 or 160, or even 170. Steal the thyroid when he does not know it. The patient, having been carefully prepared, is put on the table at an angle of 20 degrees. The anesthetic is given by tubes passed through the nose. The artery is ligated, and the position of the patient controls the venous supply. The skin alone is cut through, the superficial tissues carefully dissected with the cleanest, sharpest knives possible and each tissue recognized before cut. An elevator is placed under the neck so that it is in a convenient position. The thyroid will be seen bulging out of its bed. Separate it and ligate the four thyroids. After ligating, begin shaving down with the scissors, thus getting just as much as desired. He warns against pressing on the skin, as the squeezing out of the juice into the cellular tissue causes a hyperthyroidism which is alarming. With respect to hemolysis, it is the experience of Dr. Baker and that of Dr. Crile that the blood of a person with Graves' disease does not cause this.

DR. E. R. HAMILTON, Columbus, agreed that many cases of this condition were unrecognized. While many patients will recover under mental suggestion, etc., there are a number who must be operated on, because there is an organ which is producing too much secretion. It is a mechanical proposition. Thyroid extract should not be administered, as the trouble is due to too much thyroid secretion, and it increases the distressing sysmptoms. A pathologic condition in hyperthyroidism is in the pressure of a cyst instead of a gland, in which there is an excessive giving off of the colloid material on account of the pressure of the cyst. All the gland is capable of producing will be used up and there will be a condition of hyperthyroidism, followed by a condition of myxedema.

DR. H. T. SUTTON, Zanesville, said that he believed such tables of mortality as come from certain sections of the country could not be produced unless the patients were corralled and operated on regardless of whether they are sick or well.

DR. WARNER said that in spite of the fact that a great number do recover, there is still a certain amount of danger and many die from the result of this infection, often before diagnosis is made. Even the conservative Billings would not have the rest-cure continued if there be no result. One reason that the operation had been brought into disrepute was that it had been reserved as an operation of last resort. Operations on the thyroid are not particularly dangerous. It seems to be the policy of the Mayos to use the *x*-ray in serious cases for from three to six weeks before operation. It is done with the idea of minimizing the hyperthyroidism; Dr. Warner's experience has been that the adhesions seemed no greater with than without it. Dr. Sawyer's suggestion as to altitude is at variance with that of most observers, as the altitude has usually increased the tachycardia.

Backward School Children.

DR. CHARLES A. HOUGH, Lebanon, said that the term "defective" is sometimes improperly applied to all children who are backward in their classes. Many backward children have no mental or physical defect whatever, their inability to do good work being dependent on unfavorable home surroundings, improper or insufficient food and clothing, excessive physical labor out of school and other causes. These cases would be discovered under proper school inspection, and if the parents are unable to remedy them, the public should assume the obligation.

DISCUSSION.

DR. E. W. MITCHELL, Cincinnati, said that the larger cities have already instituted medical inspection, but it will require time in the smaller towns and country districts, and that physicians should keep working until medical inspection is obtained. He thought that the physicians of the small towns might unite and serve in turn in the performance of the duty of school inspection, without waiting for public action.

DR. J. J. MOORE, South Charleston, said that this is of vastly more importance than all the surgery in the world. France has instituted a laboratory in connection with the school, and each child is studied with relation to the physical and mental force, and goes through school according to a prescription, the record showing good results.

DR. ORMSBY, Cuyahoga, said that in one school in New York 90 children were operated on for enlarged tonsils and adenoids, and reports from these 90 two years later show them able to do more school work in six months than in two years before operation.

DR. E. J. EMERICK, Columbus, said that family physicians should pay a great deal more attention to school children, as they have an opportunity to advise with parents as to the best course to pursue in the education of backward children.

DR. ANDRUS, Marion, alluded to the demonstrated fact that children defective through impairment of hearing and visual defects are a menace to the other children in the school, as

these troubles are great factors in the production of criminals.

DR. HOUGH said he thought the suggestion that in the country the duty of examining school children for defects of sight and hearing should rotate among the physicians would not be feasible unless all were specialists, for obvious reasons.

The Potentiality of Habit.

DR. C. D. MILLS, Marysville, said that home laws should be as habitual and unchangeable as the laws of Nature. It is not so important that the child be taught the laws of habit, as that home life and government should be faithfully executed in harmony with these laws. Maturity should not be burdened with the simpler ethical problems that should have been made already habitual in childhood. The "wild oats" idea is fallacious and unscientific. The addiction to alcohol is a symptom of a functionally unstable nervous system. The typical dipsomaniac is, to all intents and purposes, a maniac before he takes a drink.

DISCUSSION.

DR. E. E. GAVER, Columbus, said that in the dipsomaniac there is a diseased condition as an endowment even before he ever has a touch of liquor. He has a peculiar array of symptoms: mental depression, sleeplessness, a sense of discomfort. One of the distinctions between the dipsomaniac and the common drunkard is the periodicity of the condition. The former does not drink daily, but these cravings come on at times and he must satisfy them. It is not the liquor, but the satisfaction that it gives him that he wants. He is not fastidious in his taste. He will take such things as vinegar and petroleum to satisfy his cravings.

MISSISSIPPI STATE MEDICAL ASSOCIATION.

Annual Meeting, held at Natchez, April 14, 1908.

(*Continued from page 1634.*)

The President, DR. R. S. CURRY, Columbus, in the Chair.

Presentation of Gavel.

After the invocation, which was offered by Rev. Robert Selby, Dr. W. H. Aikman, on behalf of the Adams County Medical Society, presented the association with a gavel, wrought of silver and five pieces of wood from as many historic places associated with Natchez and vicinity. These were red cedar from "Windy Hill Manor," where Aaron Burr was concealed in 1807; white cedar from "The Briars," where Jefferson Davis was married Feb. 26, 1845; poplar from "Longwood," where Sergeant Prentiss was married March 12, 1842, and died July 1, 1850; walnut from "Concord," where stood the residence of the last Spanish governor in 1789; hickory from Monmouth, the home of Gen. John A. Quitman, hero of the Mexican War.

In accepting the gavel Dr. Curry paid a fitting tribute to the Adams County Association for its loyalty, assuring it that he appreciated the honor of being the first to wield the mallet.

Address of Welcome.

MR. W. P. REESE, Natchez, spoke with feeling of his inherent partiality to the doctor, recalling his own father's devotion to his profession, and his solicitude for his patients. His pride of ancestry and his hope of posterity are centered in the medical profession. Mr. Reese spoke of the struggles and sacrifices and triumphs which the profession has made from the age of Æsculapius, who suffered from Olympian jealousy of the mythical god, to the present time. He doubts if the nostrums of the dark ages were more diabolical than many of the "patent medicines" of to-day. In conclusion he asked the visitors to surrender themselves to the people of Natchez and to visit their historic homes, where southern hospitality has reigned for generations. He asked them to visit the spots around Natchez associated with many of the leading names in American history. Briefly but eloquently he outlined the stories of Prentiss, Burr, Quitman, Davis and others.

RESPONSE.

DR. D. W. JONES, Fernwood, responded to the Address of Welcome. Speaking for the association, he said that Mr. Reese's words made them feel at home. Not only his words but the actions of all the people of Natchez made them feel welcome. welcome. "We have been looking forward with pleasure to this visit. We wanted to see and meet your people and we wanted to see your historic places. As Mississippians we are proud of these places and the men whose names are linked with them. We want to see your famous 'Under-the-Hill,' once the trysting place of the flotsam and jetsam of civilization." Dr. Jones also complimented the loyalty and zeal of the Adams County Medical Society.

The annual address of the president, Dr. Curry, was curtailed on account of his illness, which necessitated his return to his home in Columbus.

The X-Ray as a Diagnostic and Therapeutic Agent.

DR. S. W. LAWRENCE, Memphis, read a paper with this title which was discussed as follows:

DR. BROWN, West Point, said that he had done some *x*-ray work, and has observed that if two or three treatments fail to relieve the pain the continuation of the treatment is useless. He has secured excellent results in the treatment of carbuncles by the *x*-ray.

DR. FRANK SMYTHE, Memphis, said that it is time to sound a note of warning with reference to the inexperienced operator. Many cases of injury done by inefficient operators have come within his observation. An operator should know how to define the line of demarcation between a large and small dose. Undoubtedly, the *x*-ray in capable hands is a great agency for good, but it is equally harmful in unskilled hands.

DR. LAWRENCE, in closing the discussion, spoke of the relative merits of the coil and the static machine, maintaining that he secured in two or three minutes' use of the coil better results than in ten minutes' treatment by the static machine.

Pre-Cancerous Skin.

DR. H. E. MENAGE, New Orleans, read this paper, which was discussed by Drs. Wiss and Lawrence.

DR. ROSA WISS, Meridian, contended that the cataphoric method has been attended by the best results in the treatment of epithelioma, especially when the cells are far below the surface. While she conceded the value of the *x*-ray as a diagnostic agent and its efficiency in the treatment of the malady in its superficial stages, it is her opinion that the cataphoric method is more generally satisfactory. Dr. Wiss supported her theory by quotations from eminent authorities, as well as by the results of her own observation and research.

DR. LAWRENCE agreed with Dr. Menage's conclusions that the *x*-ray is the most effective method of treatment. Though he does not altogether agree with Dr. Wiss, he is of the opinion that the cataphoric method is effective in many cases.

DR. H. E. MENAGE, in closing the discussion, admitted that the method advocated by Dr. Wiss has merit, but insisted on the superior results from the use of the *x*-ray in the conditions mentioned in his paper.

Dr. McCormack's Address on Organization.

DR. J. N. MCCORMACK, Bowling Green, Ky., spoke briefly on the subject of medical organization. When he began work for the American Medical Association, eight years ago, his first business was to "take stock"—to find out what sort of material he was to work on. He found that 90,000 doctors in America were not affiliated with any organization, and about 30,000 were organized. The prejudice against the profession was general, due largely to the poverty, discord and lack of pride among physicians. He recited the early struggles of the profession for national legislation in the interest of national health. Instead of physicians working in harmony there were individual hostilities in small communities and factions in the cities. He referred facetiously to the medical colleges of an earlier day, where this spirit of hostility and competition was formerly fostered. Doctors who have done more charity than all the charitable organizations combined yet could not dwell together in harmony. He contrasted the conditions that for-

merly obtained with the present order of things, the American Medical Association, now having a membership of 80,000 representing 2,500 out of a possible 2,800 county organization. The plan formulated for bringing physicians together has been successful. Dr. McCormack recited the story of his early practice, when, having graduated from a leading institution and spent two years in a great hospital and building up a large surgical practice, he seriously contemplated abandoning his profession, because he thought he was not equal to its responsibilities. Years later, he took a postgraduate course. He reminded his auditors that a diploma is not a license for criminal negligence, and that every doctor in Mississippi is a criminal who fails to take advantage of every opportunity. This brought him to the discussion of the American Medical Association's plans for the further improvement of the work of the county societies and the broadening of their scope. To this end he outlined a postgraduate course conducted by county societies. Dr. McCormack paid a glowing tribute to the genius of the country doctor. The greatest names in the profession are those of country doctors. Dr. McCormack's talk was rich with humor and eloquence. He talked in a conversational tone, sitting in a chair on the stage, and emphasizing his strong points with vigorous gestures. Laughter and applause punctuated the impromptu address throughout. His appeal for the elevation of the ethical standards of the profession, and for a broader fraternal feeling was received with prolonged applause.

The Surgical Versus the Medical Treatment of Appendicitis.

DR. E. M. HOLDER, Memphis, advocated an avoidance of opiates when possible and also of cathartics until after the acute stage has passed.

DISCUSSION.

DR. L. H. LAMKIN, Natchez, believed that a patient should be relieved from the pains, and said that the judicious use of an opiate is beneficial. He also said that the bowels should be emptied and drainage of the abscess established as early as possible.

DR. TURNER, Leland, favored the use of a purgative when the diagnosis was determined. The patient is always grateful for the relief from the pains by an opiate. The pains, Dr. Turner said, are very severe, and he believes that opiates should be employed to allay them.

DR. G. L. HARBOUR, Vosburg, said that if absorption is produced, the parts relieved of distention and the patient's pain subdued by medical treatment, the individual will recover. He is absolutely opposed to surgical treatment.

DR. MARTIN, New Orleans, said that there is no cure for appendicitis except surgery. Medical treatment is preparatory. Purgatives are apt to produce an unfavorable condition. He advocated starvation and an ice bag. A recurrence means a badly diseased appendix.

DR. MILLER, New Orleans, advocated drainage and saline solution. The enema and the stomach tube he had found invaluable.

DR. FRANK JONES said that the title of Dr. Holder's paper is a misnomer. He put himself on record as saying that appendicitis is absolutely a surgical disease. The appendix is the abdominal tonsil. Medical methods are merely palliative. Medical treatment is used only to make the patient's life as comfortable as possible. To effect a cure the cause must be removed, and this can not be done by medical agencies.

DR. B. F. TURNER, Memphis, spoke for the doctor ten miles from the nearest associate, the doctor who had not surgical facilities at hand in emergencies. Formerly he stood in awe of the dictum that there was a period in every case when it should be operated on. Dr. Turner said that he had patients who were treated by medical methods fifteen or more years ago without recurrence of the disease. He does not condemn operations, but he does not endorse the dogma that appendicitis is essentially a surgical condition.

DR. ROWAN asked how the physician is to know within twenty-four hours that the case is appendicitis. It has not been his experience that the patient can not recover except by operation after the appendix has become inflamed.

DR. SHIVERS, Greenville, commended Dr. Holder's paper by saying its most valuable point is the association of the physician and surgeon.

DR. HOLDER, in closing the discussion, said that appendicitis is third in the list of abdominal troubles, the maladies being extrauterine pregnancy, strangulated hernia and appendicitis. Answering his critics as to the use of purgatives, he showed that their tendency is to distend the intestine in the vicinity of the paralyzed and weakened parts. If an operation is contemplated he insisted that opiates should never be used.

Successful Ligation of the Innominate Artery.

DR. B. BURNES, Memphis, gave statistics showing the work of others in aneurism of the subclavian artery, and exhibited a patient on whom he had operated for this condition by ligation of the innominate artery.

A Case of Malignant Tumor, with Treatment.

DR. W. L. LITTLE, Wesson, reported a case of epithelioma of the cheek treated with trypsin.

DISCUSSION.

DR. ROSA WISS, Meridian, thought that the lump should have been taken out by cataphoric operation.

DR. ROWAN said that the same case had been under his observation. The patient had come to him a short time ago with a small lump near a former tumor, and he had no doubt that the tumor would return.

DR. LAWRENCE, Memphis, does not approve of the trypsin treatment in tumors generally. He is of the opinion that *x*-ray treatment is more efficient. He knew of a case in which a man tried the *x*-ray treatment for a time, then abandoned it for Christian science, and was healed. He was fast improving under the *x*-ray, but Christian science received credit for the case. He brought out the point that the benefit of the *x*-ray is often seen only after its use has been discontinued.

Technic of Closing Bladder Fistulæ, with Report of Cases.

DR. C. J. MILLER, New Orleans, read a paper on this subject in which he emphasized some points to be observed in closing fistulæ of the bladder. The paper was discussed by Drs. Clark and Martin.

DR. CLARK, New Orleans, said that Dr. Miller had touched the keynote in the treatment of these fistulæ by the separation of the vaginal wall and the wall of the bladder. He recommended the umbrella catheter in drainage.

DR. MARTIN, New Orleans, said that he had treated six patients with this lesion, five of whom had been cured. He had followed to a large extent the methods outlined by Dr. Miller.

DR. MILLER said that he uses the ordinary soft rubber catheter in the drainage; there is not always need for the umbrella catheter. He uses plain catgut sutures.

The Present Status of Uterine Carcinoma, with Especial Reference to the Early Diagnosis and Radical Operation.

DR. S. M. D. CLARKE, New Orleans, read this paper, which was discussed as follows:

DR. DARRINGTON, Yazoo City, said that every physician in actual practice encounters these cases. He thinks that the time will come when a specific will be found for cancer.

DR. SMYTHE said that it is recognized that cancer is on the increase and the mortality rate frightfully high. From a professional point of view it is the duty of the physician to point out the symptoms and determine as early as possible the presence of malignancy. The first symptom is usually hemorrhage.

DR. ROSA WISS, Meridian, commended Dr. Clarke's insistence on a thorough examination in any pelvic disorder.

DR. ROWAN said that in his practice he has found not more than 50 per cent. of tumors malignant. The cases should be diagnosed early.

DR. CLARKE insisted that as the disease generally does not remain local more than three months, the first distress signal should be heeded. Not many years ago the percentage of mortality in breast cancer was 100, while now 33⅓ per cent. of the patients are cured. He hopes for as satisfactory results ultimately in other cancerous troubles.

Fissures in the Female Urethra.

DR. E. D. MARTIN, New Orleans, read this paper, which was discussed by Dr. Smythe, Memphis, who said that the parts affected by fissure can not heal until they are set at rest. The surgeon should not hesitate to resort to the operation when warranted by the diagnosis. Cancer of the urethra is comparatively rare, fortunately.

Extrauterine Pregnancy.

DR. F. D. SMYTHE, Memphis, read a paper on this subject, in which he discussed the frequency, the difficulty in diagnosis, and the treatment prior to rupture, after rupture and after the stage of viability. The paper was discussed as follows:

DR. J. W. BARKSDALE said that in his experience and observation appendicitis is more frequently mistaken for this condition than abscess. It is always possible when in doubt to secure an absolute diagnosis by sending specimens from the uterus to a capable pathologist. He agreed with Dr. Smythe that an immediate operation should follow the determination of the presence of this condition.

DR. M. O. SHIVERS, Greenville, said that in operating there are two methods, the vaginal and the abdominal. He thinks the safest method in cases without complication is through the vagina.

DR. JOHN DARRINGTON, Yazoo City, thinks that in the majority of fatal cases death is due directly to hemorrhage. Hence he favors abdominal section as less likely to aggravate the condition by hemorrhage.

DR. CRISLER, Memphis, thinks that the condition of extrauterine pregnancy too often escapes diagnosis.

DR. W. W. CRAWFORD, Hattiesburg, declared that the patient with ruptured extrauterine pregnancy stands in great need of a surgeon. The patients should be closely watched as soon as suspicion of the condition is aroused.

DR. BEEKMAN stated that the early diagnosis is very difficult, and that not enough importance is attached to the early symptoms, prior to rupture. When a woman gives a history of having passed a menstrual period a week or ten days, and then the function appears and continues to dribble intermittently, it is time for the physician to take alarm, especially if on vaginal examination tubal enlargement can be made out. These enlargements usually vary from that of ordinary pus tubes, in that they are usually freely movable and glide away from the examining finger.

DR. MILLER, New Orleans, wanted to know how many cases of death from rupture in extrauterine pregnancy the members had seen. He believes that the method of treatment will change, as it has done in appendicitis. He does not believe a rupture is necessarily fatal.

DR. CLARKE, New Orleans, gave his observation on a series of interesting experiments on dogs, in which the uterine and ovarian arteries were cut and allowed to bleed, showing that death in no case had resulted from hemorrhage.

DR. BUTLER gave the history of a case showing hemorrhages for two weeks. The patient was sent to a hospital and operated on. The patient recovered.

DR. SMYTHE agrees with Drs. Crisler and Darrington in their ideas as to the frequency of the disease. He has operated on sixty patients; of this number one died from the operation, plus the shock and the anesthetic.

(To be continued.)

SOUTH CAROLINA MEDICAL ASSOCIATION.

Sixtieth Annual Meeting, held in Anderson, April 14-16, 1908.

The President, DR. LEGRAND GUERRY, in the Chair.

Election of Officers.

The following officers were elected for the year: President, Dr. Samuel C. Baker, Sumter; vice-presidents, Drs. Hugh R. Black, Spartanburg; Waller H. Nardin, Jr., Anderson, and Andrew T. Baird, Darlington; secretary, Walter Cheyne, Sumter; treasurer, Dr. Charles P. Aimar, Charleston; delegates to American Medical Association, Dr. Cyril T. Wyche, Prosperity, and Dr. Walter Cheyne, Sumter.

A committee with Dr. J. L. Dawson of Charleston as chairman, was appointed to organize a branch of the American Anti-Tuberculosis League. Dr. Mary R. Baker of Columbia was elected a member of the State Board of Medical Examiners.

The honored guests of the occasion were Dr. J. M. T. Finney, Baltimore, who gave an address on "The Differential Diagnosis of Appendicitis," and Dr. Richard Cabot, Boston, who, in his address, "Psychotherapy," spoke of the use of mental suggestion in general practice, with particular reference to nervous disorders.

Reorganization Plan Works Well.

For the first time since the reorganization under the plan of the American Medical Association, the business affairs were transacted by the house of delegates without in any way interfering with the scientific sessions. The attendance was good and marked interest shown both in the excellent program of scientific papers in the lively discussion, and in the matters of vital interest to organized practitioners.

The division of the business and scientific sessions was found to be so beneficial that a resolution providing for a further division of the scientific sessions into two sessions—surgical and medical—was unanimously adopted.

The following papers were read:

"Acute Bowel Obstruction," by Dr. A. B. Knowlton, Columbia; "Retroperitoneal Abscess: Probably Caused by Diverticulitis," by Dr. C. M. Rees, Charleston; "Skin Grafting," by Dr. Mary R. Baker, Columbia; "Is Medicolegal Legislation Needed in South Carolina?" by Dr. Walter Cheyne, Sumter; "A New and Effective System of School Hygiene," by Dr. E. A. Hines, Seneca; "Successful Treatment of Catarrhal Deafness with Especial Reference to Conditions in Rosenmüller's Fossa," by J. W. Jervey, Greenville; "Some Nervous Manifestations of Gastrointestinal Autointoxications," by Dr. J. C. Sonowski, Charleston; "Do We Pay Enough Attention to Prophylaxis," by Dr. W. J. Burdell Lugoff; "Tumor of the Carotid Gland, with Report of a Case," by Dr. R. S. Cathcart, Charleston; "Placenta Prævia," by Dr. H. R. Black, Spartanburg; "Puerperal Eclampsia," report of cases, by Dr. H. L. Shaw, Fountain Inn; "Recent Discoveries in Intestinal Digestion and Disorders," by Dr. Fillmore Moore Aiken; "The Value of X-Ray Photography in Treatment of Fractures, Dr. S. C. Baker, Sumter; "Have the Recent Reported Deaths from Diphtheria Antitoxin Injections Been Satisfactorily Explained?" by Dr. L. C. Stephens, Greenville; "Uncinariasis," by Dr. William Weston, Columbia; "Ophthalmic Reaction in Tuberculosis," by Dr. E. W. Carpenter, Greenville; "Gallstones," by Dr. W. C. Black, Greenville; "Continued Fevers." by Dr. J. J. Watson, Columbia; "Physician in Politics and the Political Physician," by Dr. Julian Carroll, Summerville; "Torsion of the Omentum," by Dr. T. P. Whaley, Charleston; "The Proposed Work of the South Carolina Anti-Tubrculosis League," by Dr. A. Bethune Patterson, Barnwell; "Pneumonia and Complications," by Dr. E. L. Patterson, Barnwell; "The Influence of a Pathologic Tonsil on Health," by Dr. J. F. Townsend, Charleston; "Some Disadvantages of Prescribing Proprietary Preparations," by Dr. J. B. Townsend, Anderson.

Insurance Fees.

In the house of delegates the proposition for reduction of the examination fee for fraternal order insurance was again brought up, and the proposition of the South Carolina medical fraternity was again energetically emphasized by a reiteration of the resolutions heretofore passed, that no examination requiring uranalysis, should be made by any member of the association for less than a five-dollar fee. The suggestion for reduction came from the Anderson County society, which was not in good standing a year ago because of its failure to comply with this requirement of the state association. Through strenuous efforts on the part of President Legrand Guerry, this society was persuaded to come in during the past year and take this method of bringing the matter again before the state association. It is now believed that it will abide by the result and continue in harmony with the state association.

Political Action.

A resolution introduced by Dr. Davis Furman of Greenville, ex-president of the association, will probably have good results although overwhelmingly defeated. Dr. Furman wanted each county society to induce one of its members to become a candidate for the state legislature, for the avowed purpose of securing favorable sanitary and health legislation by that body. The discussion of the resolution was prolonged. The legislation passed in Columbia this year was very satisfactory in certain particulars, and the concensus of opinion seemed to be that better results would be obtained in the future. Dr. C. T. Wyche of Prosperity, Newberry County, a prominent member

of the legislature, to whom the credit is largely due for the satisfactory legislation of the past year, was present and took part in the discussion.

Venereal Prophylaxis by Education of Young.

Special interest was shown in the annual address of President Guerry, who directed attention to the necessity for the teaching in the schools of hygiene and physiology of sex as the greatest possible factor in controlling the spread of the "Great Black Plague." In the line with his suggestion, a committee was appointed to formulate plans for the organization of a South Carolina branch of the American Society of Sanitary and Moral Prophylaxis.

Dr. Walter Cheyne of Sumter, secretary of the association, in his annual report, advocated a change of the present law relating to county coroners, and the appointment by the governor of a competent medical man in each judicial district to fill the coroner's position.

The association will meet April 21-23, 1909, at Summerville.

MEDICAL JURISPRUDENCE SOCIETY OF PHILADELPHIA.

Meeting, held Monday, April 20, 1908.

The President, DR. WILLIAM M. L. COPLIN, in the Chair.

The Bar as Seen from the Witness Box.

DR. HENRY LEFFMANN read this paper. His experience has been principally in local criminal courts, but partially in other states and in federal courts. He has seen many changes in the more than quarter century that he has been in expert practice. His impressions are that the practice of law is very different from the theory. The principle of law was said to be an attempt to establish a system of ethics supplementing the so-called fundamental moral codes, not expecting to render absolute and exact justice at all times, but average justice. Human life is too intricate and human impulse too uncertain to admit the attaining of absolute justice, but in practice the law is principally exerted to secure a proof. The dominating motive of the lawyer is to win his case. While not implying dishonesty, Dr. Leffmann says that the practice of law has developed codes of legal ethics and systems of procedure in which technicality and insincerity have become not only legitimate but necessary. It is said that while the medical profession is the subject of criticism in regard to its changing theories in pathology and therapeutics, and that while much of the criticism may be acknowledged as just, there may be seen throughout the profession the dominating object of the amelioration of suffering and the saving of life, the net result of medical activity being to make a community more comfortable, longer lived and more efficient. Such is not the result of legal activity. While the state and national legislatures swarm with lawyers, reform in judicial procedures moves with leaden feet. Nothing is more uncertain than a legal opinion. Regarding the allotment of fees, it is said that lawyers have two distinct codes—one for themselves and one for outsiders. Courts are extremely liberal in allowing fees to attorneys. Dr. Leffmann has known of $250 having been allowed as a lawyer's compensation for a small service, the trial judge remarking that it was little enough, when a similar charge by an expert witness for several times the amount of the work would have been regarded as extortion. Further, lawyers do not hesitate to put witnesses to loss of time and expense without compensation.

DISCUSSION.

DR. CHARLES W. BURR believes that one great difficulty between medical experts and judges arises from their entirely different points of view. He does not think the plan of having medical experts paid by the state would be a good method, because there would be appointed men not skilled in learning, but men who had backing of whatever political power might be in the ascendancy.

DR. CHARLES K. MILLS regards the idea of having state experts an impractical one and one that would cause very much greater abuses than now exist.

DR. J. HENDRIE LLOYD referred to the carelessness with which lawyers sometimes prepare their cases in which expert testimony is concerned, and gave some instances in his experience. He feels that there is too much democracy in the courts to-day, and that they have unfortunately lost to a great extent the old monarchical power so effectual under the English government.

DR. S. SOLIS-COHEN considered the point raised by Dr. Lloyd regarding the absence of monarchical power in the judge rather a misunderstanding of the situation; sometimes the question is one of the absence of common sense rather than of power. When judges will rule in a diametrically opposite way on a point which ought to be a settled principle of an exact science, there is little wonder at the conflict which expert testimony sometimes arouses. The failure of some attorneys to consult experts in time for a careful preparation of their cases, mentioned by Dr. Lloyd, he regards as the keynote of the whole question. Personally, he has been amazed at the certainty of the lawyer that in a given case he would testify as the attorney desired, without having had time to study the question. The idea that the physician can adopt within five minutes any opinion desired by the attorney should be eradicated by physicians refusing all such cases. It has been his good fortune to find very eminent members of the bar willing to receive suggestions from a physician as to the manner in which a case should be prepared. He believes that the trained lawyer and man of sound judgment, of learning and insight is anxious to have instruction on the scientific aspect of the case and to know the exact value to be attached to different matters that can be brought forth. He has always felt that he could be of more service to counsel by assisting in the preparation of the case than by going on the stand, because of the difference between an advocate and a witness. The expert witness should merely go on the stand to testify to the facts of his observation and his scientific judgment. On the other hand, the physician who is consulted with the idea of serving the interests of the side which the lawyer represents, may state what sort of testimony should be sought for, but having done that he is morally disqualified from going on the stand.

Finally, Dr. Solis-Cohen believes that it would be possible after perhaps several centuries of intermingling in such a society as the Medical Jurisprudence for a comity to arise between lawyers and physicians that would prevent any lawyer from attempting to "bullyrag" any physician giving his honest opinion on the witness stand. That would also tend to make judges desire to restrain any such undignified, indecent and insolent exhibitions.

ADOLPH EICHHOLZ, ESQ., said that the question of the lack of consideration received by the expert at the hands of the lawyer, while an undoubted evil, is a part of a larger evil, the remedy for which is not at present apparent. The court was compared to a big battle field, where human contentions, private difficulties, factions and adverse opinions were fought out and necessarily many things are done and said that would not happen in gentlemen's parlors. Such evils do not affect the medical profession alone, but almost any class of men called on in the administration of justice.

MEDICAL SOCIETY OF THE STATE OF CALIFORNIA.

Thirty-eighth Annual Meeting, held at Coronado, April 21-23, 1908.

The President, DR. GEORGE H. EVANS, in the Chair.

The officers elected for the ensuing year were given in THE JOURNAL, May 16. San Jose was chosen for the place for next meeting. Resolutions were passed endorsing the two bills in Congress dealing with the betterment of the U. S. Public Health and Marine-Hospital Service.

The meeting was in every way a satisfactory one. Owing to the fact that it was held in the extreme southern part of the state, the attendance of members from the northern sections was not so large as usual, though the registration showed that over 200 members were present. All papers were limited to ten minutes; this limitation the president absolutely

insisted on and the result was most satisfactory. The time limit of discussions also was rigidly enforced, and to this action was largely due the crisp, interesting and profitable discussions. The sessions of the house of delegates were held on Tuesday and Wednesday evenings.

The President's Address.

The first session, Tuesday morning, was devoted to the president's address and to the reports of scientific committees. The president dwelt principally on the duty of the profession toward the public in sanitary matters and cited the enormous influence which had been exerted in San Francisco in stirring up the antiplague fight as an example of what our profession should be doing in many and various ways for the public safety.

Committee Reports.

The reports from the board of examiners and the committee on medical education were listened to with great interest and the work of the educational committee toward the rigid investigation of credentials of preliminary education and strict compliance with the standards fixed by the Association of American Medical Colleges were applauded by the members present and subsequently endorsed by the house of delegates. Much of the trouble and confusion found in medical schools and many of the grievous errors detected were due, in the opinion of the committee, to a deplorable ignorance on the part of college deans as to the standards and requirements in force and effect. The committee was instructed to proceed in the matter in such a manner as it saw fit, with the object of educating deans on the various points involved.

Report of Pure Food Commission.

One of the most interesting and valuable features of the whole meeting was the report of the pure food commission, appointed last year, which report took the form of a series of papers on various pertinent subjects and an exhibition of material gathered by the commission. A room had been set aside for this exhibit, which consisted of copies of all health and sanitary ordinances and laws, federal, state and municipal; photographs of dairies and water supplies, clean and unclean, and a large quantity of similar matter. A lunch table had been set, on which every article was either adulterated, misbranded or preserved with some deleterious preserving agent. Great interest was taken in this exhibit, and the room was well filled during all the time between sessions.

Tuesday afternoon two sessions were held simultaneously, the one on eye, ear, nose and throat topics, and the other genitourinary and urologic. In both instances the programs had been so arranged as to provide topics which would be of interest to the general practitioner, and both sessions were largely attended. Otitis media was the principal subject of discussion in the first-mentioned session, and gonorrhea that in the second. The discussions were full and brought out much of value.

The Plague.

Tuesday evening was given up to a discussion of plague. Drs. Rupert Blue and W. C. Rucker, of the U. S. Public Health and Marine-Hospital Service, talking on "The Eradication of Plague," illustrated by a large number of lantern slides covering the whole subject. It was clearly evident that the whole state is alive to the danger from plague and that all are taking a great interest in the disease and its eradication.

Symposium on Syphilis.

Wednesday morning's session was devoted to a symposium on "Syphilis," and from diagnosis to treatment it was well covered and well discussed. In the afternoon of Wednesday there were no sessions; automobile trips and excursions about the Bay of San Diego provided for the members a most enjoyable afternoon.

Symposium on the Thyroid.

Thursday morning brought a resumption of scientific work, and a symposium on the "Thyroid Gland," with five papers of interest and value, were presented. The afternoon was devoted to miscellaneous papers, all of value and some of unusual interest, and the session closed exactly on time.

Medical Education and State Boards of Registration

COMING EXAMINATIONS.

INDIANA Board of Medical Registration and Examination, Indianapolis, May 26-28. Secretary, Dr. W. T. Gott, 120 State House, Indianapolis.

NEBRASKA State Board of Health, State Capitol, Lincoln, May 27-29. Secretary, Dr. E. J. C. Sward, Oakland.

MINNESOTA State Board of Medical Examiners, Old Capitol, St. Paul, June 10-12. Secretary, Dr. W. S. Fullerton, 217 American National Bank Bldg., St. Paul.

IOWA State Board of Medical Examiners, Capital Building, Des Moines, June 4-6. Secretary, Dr. Louis A. Thomas, Capital Bldg., Des Moines.

OHIO State Board of Medical Registration and Examination, Columbus, June 8-10. Secretary, Dr. George H. Matson, State House, Columbus.

MICHIGA: State Board of Registration in Medicine, University Bldg., Ann Arbor, June 9. Secretary, Dr. B. D. Harison, 504 Washington Arcade, Detroit.

SOUTH CAROLINA Homeopathic Medical Examining Board, Columbia, June 9. Secretary, Dr. J. A. Whitman, Beaufort.

KANSAS State Board of Medical Registration and Examination, Kansas City, June 9. Secretary, Dr. D. P. Cook, Clay Center.

SOUTH CAROLINA State Board of Medical Examiners, Columbia, June 9-11. Secretary, Dr. W. M. Lester, Columbia.

WYOMING Board of Medical Examiners, State Capitol, Cheyenne, June 10-12. Secretary, Dr. S. B. Miller, Laramie, Wyo.

OKLAHOMA State Board of Medical Examiners, Shawnee, June 15 (about). Secretary, Dr. J. C. Mahr, Shawnee.

TEXAS State Board of Medical Examiners, Waco, June 16. Secretary, Dr. G. B. Foscue, Waco.

MARYLAND Homeopathic Board of Medical Examiners, Baltimore, June 16. Secretary, Dr. Joseph S. Garrison, 848 W. North Ave., Baltimore.

NEW JERSEY State Board of Medical Examiners, State House, Trenton, June 16-17. Secretary, Dr. J. W. Bennett, Long Branch.

Preparation for Medicine.

In his address before the meeting of the American Academy of Medicine at Pittsburg, Jan. 2, 1908, and published in the Academy's *Bulletin* for April, Prof. W. F. Mercer of the Ohio University laid emphasis on the value of a thorough preliminary education, and favored the requirement of one, or better, two years of study in the liberal arts' college, including courses in physics, chemistry and biology. This work should not be offered by the high school and could not be done there satisfactorily, since "it needs equipment and trained teachers to teach science in these days." The value of these studies is more for the training; for the experience in doing the work and for the spirit of investigation which the work arouses, rather than for the mere memorizing of isolated facts.

The old thread-bare argument that if a higher preliminary education is required the country would lose all its doctors because all these higher trained men would want to practice in the cities is answered by the statement that all men will find their level and some men, even though highly trained, will find themselves better adapted to country practice than city practice.

Another oft-heard statement that medical colleges with higher preliminary requirements will make theorists rather than train men to do practical things is branded as merely an argument of the weaker colleges to influence prospective students. "A man to be a physician should know more than merely how to do things; he must have a thoroughly trained and mature judgment. . . . We need the very best men and the most thoroughly trained men in the medical profession, not for the money that is in it, but for the good of humanity. No man lives a successful life who does not in some way help on society to a higher level."

Surgeons' Club Adopts Resolutions.

The Surgeons' Club of Rochester, Minn., at a meeting held April 16, 1908, attended by representatives from several states, adopted resolutions favoring (a) a single board of medical examiners for each state; (b) the omission of the subject of therapeutics from the license examination; and (c) the granting of authority to the examining board to revoke the licenses of practitioners guilty of inebriety, cocain or mor-

phin habits, of causing criminal abortions, and of misrepresenting themselves in the public press or in any other way.

Adopt Higher Entrance Requirements.

Three more colleges, the University of Oregon Medical Department, the Louisville and Hospital Medical College and the John A. Creighton Medical College have voted to demand higher standards of preliminary education beginning with 1910. The first two adopted a requirement of one year's work in a college of liberal arts, and the last named a requirement of two years of such work.

The Colorado Board of Medical Examiners will require that all applicants graduating after Jan. 1, 1912, must have had one year's work in an accredited college of liberal arts before matriculation in a medical college.

There are now 53 leading medical colleges which by 1910 will be requiring for admission at least one year of work in a college of liberal arts, in addition to the usual four-year high school education. Twenty-seven of these colleges will require two years of such work.

Already the examining boards of five states—Minnesota, North Dakota, Connecticut, South Dakota and Colorado—have adopted similar requirements which apply to all students hereafter matriculating in medical colleges who expect to locate in those states. The two first named states will require two years of liberal arts' work and the last three, one year.

COUNCIL ON MEDICAL EDUCATION OF THE AMERICAN MEDICAL ASSOCIATION.

Fourth Annual Conference, held at Chicago, April 13, 1908.

(*Continued from page 1647.*)

Report of the Committee on Preliminary Medical Education.

Following the secretary's report, Dr. John H. Long of Chicago, chairman of the Committee on Preliminary Education, submitted the report of that committee.

About a year ago I had the honor of reading to the Council the report of its special committee on Preliminary Medical Education, in which certain data regarding courses in physics, chemistry, biology and languages given in the universities and colleges of the country were presented, and in which some recommendations were made. Since then the Committee has been at work gathering further information on the subject, which I now take pleasure in reporting.

OBJECTIONS TO THE TERM "PRELIMINARY YEAR."

In our report of last year the views of a number of educators on the practicability of the suggested schemes were given, and something was said about the objections which were raised against calling the work required a *preliminary year*. It was held by the objectors that the work in physics, chemistry, biology and languages which our committee considered as desirable, if not absolutely necessary prerequisites to study in the medical school, could not be done by the end of the freshman year in our colleges, even in the way of electives, and that it should be called the work of two years, rather than that of one. Further study has not led us to agree with this view as expressing the situation in the best of our colleges, but we must admit that for many of the smaller ones it is possibly not far from correct.

In the several reports read last year two facts, among many others, were brought out clearly. First, that in the large number of medical schools of the country there are about 80 which are well equipped, and which actually accomplish a grade of work that entitles them to be placed in a class by themselves, or, as it may be called, the acceptable class. Secondly, it was shown that a far better preliminary education on the part of those entering the medical schools is desirable, and that a very considerable number of our colleges and universities are prepared to give this desired training in the first year of their schedules.

During the course of our correspondence in the last twelve months it has become plain that an increasing number of good schools of liberal arts are prepared to offer a wider range of electives from which selections in science may be made. There is, then, an improvement in this phase of the situation.

Everything, therefore, seemed to work harmoniously toward the end sought for; namely, the announcement of a marked advance in the work of the 80 schools of the higher grade. In this hope we are somewhat disappointed, as the canvass shows that about one-fourth of these are not yet willing to take this important step, and the reasons urged in some cases are such as to call for a further discussion of first principles.

In a few cases, it must be said, the replies returned to our letters of enquiry were really evasive and showed a disposition to avoid giving a fair answer to our questions. In two or three instances the replies were equivalent to the statement that the colleges addressed were able to manage their own affairs without advice from our committee. This is doubtless true, for the moment, but we hope other days will bring a change of views.

But in some instances definite reasons were urged for failure to comply with our suggested educational requirements, and the most important of these will now be discussed, as practically they represent types, rather than individual cases.

1. In a neighboring state there are a number of schools of medicine which draw their students almost wholly from within the borders of the state. One of these schools is of sufficient merit to belong in the first group of the classification, but it suffers from the rather severe competition of the others with lower entrance requirements. In explaining the situation to our committee, the president of the university, of which this school is a part, asserts that a further increase in the requirements for admission would probably be fatal to this school at the present time, as admission now is relatively difficult and no moral support is afforded by the State Board of Health. This president is a man of high ideals and broad views, and we feel that we must admit for the time the validity of his explanation. At the same time we wonder why some boards of registration are sometimes so blind to their possibilities as well as to their duties. What is told us of this locality is doubtless true of others.

HIGH SCHOOL PHYSICS NOT SATISFACTORY.

2. Another man writes that our requirements are too high, and that preliminary work in the three fields of science and in languages is more than we can practically secure. He suggests that probably the physics of the high school might be accepted as sufficient in place of calling for a year of college physics. Most of this objection was considered in our report of last year and should need no further discussion now. But in regard to the definite suggestion that the course in high school physics should be considered satisfactory for our preliminary work, more may be said. In urging this suggestion the writer made the very plausible assertion that in recent years a number of very excellent works on elementary physics have appeared, and that these are used in the high schools very generally. The excellence of some of these text-books must be granted, but that they are used in a way to satisfy our requirements is another question. To gain light on this point letters were addressed to the presidents and professors of physics in a number of larger institutions in several states. The answers to these letters were in general such as to warn away from the notion that high school physics, even under the most favorable conditions, covers what we want. In some cases the college men addressed were quite outspoken in their condemnation of the idea. But this does not exhaust the question; there is a growing sentiment against the belief that the high school should be called on to give so much advanced work to take the place of what has long been considered as proper freshman work in college.

RELATION OF THE HIGH SCHOOL TO UNIVERSITIES.

It is an old question, and yet a very live one, that of the relations of the high school to the colleges and universities. Recent discussions in this city bring it to the fore again, and certain arguments advanced at the meetings of the North Central Association of Colleges and Secondary Schools by the men representing a few of the high schools were very strong against some of our tendencies. It has been held that the sooner we get away from the notion that the high school is the only proper and natural feeder for the universities, the better will it be for all concerned. In the high school a certain amount of training in the sciences must be given, but it is agreed that this should be the general training for the boy or girl going out into the world equipped for some practical pursuit, rather than the special systematic training leading directly into more advanced work in the same lines in the college or university. The high school is already overburdened with subjects which perhaps more properly belong in other institutions, and to attempt to make the physics or chemistry or biology of the last year of the public school course suitable for our medical school requirements is certainly absurd. In order to clear up our conceptions here it may be necessary to begin to insist on a more rigid distinction between

high schools, academies, colleges and universities. We are working toward the ideal condition in which our medical school work will be considered as real university work.

THE "LET-WELL-ENOUGH-ALONE" ARGUMENT.

3. A third answer to our questions regarding the intentions of these schools was even more surprising, in view of the full discussions of the last two years on the subject. This answer maintains that the present situation satisfies all reasonable needs, and that students are sent out with an equipment which is as full as is practically required. The validity of this answer hinges largely on what we may understand by the word "practical," and, as is readily apparent, it must be colored by the peculiar viewpoint of the man giving the answer. To illustrate, consider the natural requirements of the teacher of obstetrics, and the teacher of pharmacology, and in doing this we are not making any comparison of the one field with the other, or asserting that one is in any sense more important than the other. Both specialities are extremely important. But this is true, that a boy of very limited preliminary education, if he happens to be industrious and observant as to details can develop into a skilful operator within the limits of the college course, while in the domain of pharmacology no such thing is ordinarily possible. The latter subject, from the very nature of the case, makes for different requirements, and what the student can acquire through his course in this field is relatively small. Unless he comes to the work with a good intellectual equipment, with considerable special knowledge, his success will be of a doubtful character. This illustration is chosen because the chairman of your committee has had occasion to discuss the question with a well-known obstetrician, on the one hand, and with a well-known pharmacologist, on the other. Both men are industrious workers in their chosen fields, and both possess more than the usual amount of general education. But the first is satisfied that boys with a high school training, or in some cases with a grammar school training, are well equipped for the study of medicine, while the second man is quite distrustful of the whole situation, and disposed to be very pessimistic regarding the work of most of our schools in the fields of materia medica and therapeutics. This man insists strenuously on far better preliminary work, especially in chemistry and biology, and we can not avoid the conclusion, knowing something of his specialty, that his claim is a perfectly just one. We feel that our obstetrician friends, and others, too, who have been doubtful, must begin to look at the problem in a broader light, and that they will join us in asking for more scientific work at the outset.

SUBJECTS FOR THE PRELIMINARY COURSE.

These remarks have all been suggested by answers received in the course of discussion or correspondence on our topic. Other questions also suggest themselves in this connection, and one is with reference to the order and relations of studies in the schools which adopt our proposals. In asking for a year of preliminary college work we can not expect that organic chemistry will be included. It may be assumed that under this provision students will come to the medical school fairly well equipped in inorganic chemistry and elementary qualitative analysis, at most, in addition to their courses in physics, biology and languages. The medical schools, at least most of them, may have to include in their curricula courses in organic chemistry and a good outline of volumetric analysis. In those schools of medicine which have heretofore given general chemistry and qualitative analysis in the freshman year, bacteriology may now properly become a first year study, and whether it be taken before or after the organic chemistry makes but little difference. Bacteriology as required in the medical school, is a fundamental and elementary science, and may be taken even in the first semester. To be sure, in some of the higher fields of bacteriological work, a good knowledge of organic chemistry is necessary, but the converse may be said with equal truth, that is, in many problems of the new physiological chemistry acquaintance with bacteriology is indispensable. However, in the ordinary student courses we are not dealing with such situations and the general bacteriology courses may well be taken by freshmen, thus permitting more and better work in other lines to be done in the sophomore year, where bacteriology is now usually given. The preliminary year in biology should have an effect in modifying materially the amount of work given to freshmen in some parts of the courses in embryology, histology and physiology. In following out some such scheme as was suggested last year the young man in preparation for the medical school should acquire a real working knowledge of the microscope, and much of the theory and practice of section cutting, staining and mounting. It is not necessary to enlarge on the importance of all this with reference to the medical school work. With such knowledge already in possession of the student, the instruction in histology may begin at once with the real work of the course, thus securing an enormous advantage in time, as well as the possibility of greater thoroughness.

A STRONGER FOUNDATION NEEDED.

The answer received from one of the schools which have not yet agreed to make an increased entrance requirement, calls for further discussion on a fundamental point which we supposed was everywhere regarded as settled. This school is one of the best known in the country, yet is very lax in its entrance requirements and is not willing to announce an improvement. The claim made by the authorities of this school is to the effect that what is needed to advance medical education is not so much better preliminary work, but better clinical instruction. Your committee can not accept this doctrine. In this particular institution the clinical teaching is already in advance of the students' power of real comprehension, and, doubtless, the same may be said of many other institutions. As intimated above, the difficulty is not as much in the various fields allied to the departments of surgery, obstetrics or gynecology, but in that other broad group of subjects making up what is designated as internal medicine. The general anatomy and histology related to medicine are already much more highly developed than are the physics and chemistry related to medicine, yet it seems to be true that it is on the more advanced development of chemistry that the future of scientific internal medicine depends. To-day many of the world's most famous workers in general, organic and physical chemistry are straying from these fields over into the field of biological chemistry, because it is evident that here the future development must be the greatest; here the most important problems are to be attacked and solved, and here the rewards for research must be the most certain and lasting. It is strange that medical men have been the last to recognize this invasion of their field, but it is a fact that the chemist is finding in the subjects of internal medicine an opportunity for research of the highest practical importance. In every great medical problem there are two fundamental questions: What is the matter, and what is to be done, or more technically expressed, the questions of correct diagnosis and treatment. Diagnosis was at one time largely a matter of interpretation of signs; it is still a question of signs, but year by year more and more signs may be brought under observation, and more methods may be called in for their interpretation. It may be the blood, the urine, the sputum or the feces that we interrogate chemically or bacteriologically, or it may be the mode of the heart's or lung's action, or the temperature of the body, or some other point that we observe physically, or the appearance of a certain thin section under the microscope, but in any event our questions are becoming more precise, and we demand greater and greater precision in the answers. What a vast deal of knowledge must be drawn on to reach the logical conclusion, but when once reached, it must have a correspondingly great importance.

KNOWLEDGE VERSUS NOSTRUMS.

Next, having located the trouble, what is to be done. Assume for the moment that the ailment is one that may yield to medication, and we are at once burdened with a superabundance of riches. From the days of Galen, or, better, from the later iatro-chemical period inaugurated by Paracelsus we have been deluged with remedies. There is scarcely a thing under the heavens which at some time in its history has not been used in the cure of disease, and think how many of these have been "absolute specifics!!" We have discarded thousands of these absurdities, and think ourselves now wise, but alas, modern advertising methods have made us familiar with a lot more just as wonderful, and when their great value is attested by numerous reports from Bugelheim-Kartenspiel's world-renowned clinic in Vienna, Prague or Berlin, and later by numerous remarkable cures from the practice of Dr. XYZ of Hoopole Town, Posey county, we are perhaps almost persuaded that the real thing has been found. But even if we are not fully convinced, our friend who is less familiar with the details of organic chemistry may be. He may not be able to see the absurdity of the hy-sko-mors, gin-rik-shas, or the panc.-ext.-sub-gum, or the various other hyphenated monstrosities which remind one of the bill of fare of a chop-suey establishment. Our friend, our brother physician may be fooled by all this because he has not been taught in the right way to discriminate. We may be able to recognize it, but he, for the time, is unable to see the absurdity in the oft-repeated assertion: "I put him on gin-rik-sha, and he made a rapid recovery." Disgusted by the apparent success of nostrum fakers many

good men are inclined to go to the other extreme and become adherents of an almost equally fatal therapeutic nihilism.

BETTER EDUCATION IN FUNDAMENTALS NEEDED.

What is the remedy for all this! Not more or better clinical teaching, as our correspondent above referred to asserts, however desirable improvements in this direction may be, but primarily better education in fundamentals. This we believe is our main chance for salvation. In one department of medical education there is just now a great awakening, and that is in the field of pharmacology. We do not mean the old-fashioned materia medica jumbled up with a somewhat doubtful therapeutics, but the real science of the constitution of remedies in relation to their physiological behavior, experimentally determined. An honest study of pharmacology, we believe, will do more to cure these growing evils than anything else hitherto attempted. But pharmacology is not play, and to properly master it the student must bring to the medical school a far better scientific knowledge than is now usually the case; he must, in fact, be in a position to work into the spirit of real laboratory methods.

POSSIBLY TWO YEARS NEEDED.

It is such considerations as these which lead to the conclusion that the preliminary work should be even more thorough than that advocated in our report of last year, and sooner or later what was described as a preliminary year of college work must develop into two solid years of such preparation. Some of our larger medical institutions are insisting on this now, and all the others which expect to remain in the first class must come to it. Of course it can not be hoped, even if it were desirable, that all will be brought to the standard of Harvard or Johns Hopkins.

THE OBJECT IN VIEW.

It is, of course, not held that in the time given to the preliminary courses in the sciences, or to the later courses in organic and physiological chemistry in the medical school, the students will become proficient analysts, and so able to recognize at once the composition of the various new remedies exploited from time to time. This is not possible and it is not necessary. But the student can at least learn enough chemistry and pharmacology to be able to judge fairly well of the honesty of the claims made, or the validity of the criticisms of those who are fitted to publish the composition of things, in question. With a proper training in pharmacology his judgment will be strengthened to the extent that the gross and absurd frauds, now so common, will no longer appeal to him, and claims chemically and physiologically impossible may be at once recognized. Above all things the medical student needs the material from which he can form rational judgments, and for this purpose, as for many others, nothing is better than a training in the exact sciences.

It may be added, finally, that an advantage of no small import derived from the more thorough training of medical students in the fundamental branches is the appreciation of the value of scientific research work. Experience has shown over and over again that the scientific curiosity of the laboratory of to-day develops into the valued routine of the clinician of to-morrow, and the student should be so stimulated as to keep this thought always in mind.

Committee on Preliminary Education.

J. H. LONG, Chairman.
C. R. BARDEEN,
G. A. PIERSOL.

Report of Committee on Definition of Medical College in Good Standing.

THE CHAIRMAN: The next report is the "Report of the Committee on What Should Constitute a Medical College in Good Standing?" The chairman of that committee is Dr. Victor C. Vaughan of Ann Arbor, Michigan, the other members being Dr. William J. Means of Columbus, Ohio, and Dr. George W. Webster of Chicago. The chairman of the committee, Dr. Vaughan, then submitted the following report:

Below is a schedule of the minimum requirements, laboratory equipment and clinical facilities which should obtain in a medical college before it can be considered as giving a satisfactory course or be determined as a medical college in good standing:

I. REQUIREMENTS.

1. Matriculation.—For matriculation the medical college should require of each student:

(1) A certificate of good moral character, signed by two reputable physicians of the state in which the applicant resides; and,

(2) As evidence of satisfactory preliminary education, a medical student's matriculation certificate, issued by the state board of medical examiners or its authorized agent, this certificate to be issued on (A) acceptable credentials, or (B) on successfully passing a preliminary examination.

A. Acceptable Credentials.—(a) A degree from an accredited university or college of arts or science; or,

(b) A diploma from an accredited four-year high school, normal school or academy which required for admission eight years of study in the primary and intermediate grades and which furnished a preliminary education of at least 15 units (30 points or credits, or 75 counts), as given in the following outline (suggested by Dr. W. J. Means, chairman of the judicial council of the Association of American Medical Colleges):

STATEMENT OF ACADEMIC OR SECONDARY WORK FOR ADMISSION TO MEDICAL COLLEGE BY CREDENTIALS OR EXAMINATION.

REQUIRED BRANCHES.

	Units.	Points.	Counts.
Rhetoric and composition	1	2	5
History of English and American literature	1	2	5
Algebra, through quadratics	1	2	5
Geometry, plane	1	2	5
Latin, grammar and 4 books of Cæsar or equivalent	2	4	10
U. S. History and Civics	1	2	5
Physics, with laboratory work	1	2	5
Total	8	16	40

ELECTIVE BRANCHES.

Seven units, 14 points or credits, or 35 counts to be selected from the following subjects. Not more than 2 units, 4 points or credits or 10 counts from any one group:

Group 1:			
English Classics (College Entrance Examining Board list)	2	4	10
Group 2:			
Geometry, solid	.5	1	2.5
Trigonometry	.5	1	2.5
Group 3:			
Latin, Cicero (7 orations)	1	2	5
Latin, Vergil (6 books)	1	2	5
Group 4:			
German, grammar with 2 years' certified work	2	4	10
French, grammar with 2 years' certified work	2	4	10
Spanish, grammar with 2 years' certified work	2	4	10
Group 5:			
History, Greece and Rome	1	2	5
History, medieval and modern	1	2	5
History, England, half year's work	.5	1	2.5
History, France, half year's work	.5	1	2.5
Group 6:			
Biology, with laboratory work	1	2	5
Botany, with laboratory work	.5	1	2.5
Zoology, with laboratory work	.5	1	2.5
Physiology and Hygiene, with laboratory work	1	2	5
Group 7:			
Chemistry, with laboratory	1	2	5
Total	18	36	90

A *unit* is the credit value of 36 weeks' work of 5 recitation periods per week, each recitation period to be of not less than 45 minutes.

A *point* is the credit value of 18 weeks' work of 5 recitation periods per week, each recitation period to be of not less than 45 minutes.

A *count* is the credit of one recitation period per week of not less than 45 minutes through 36 weeks.

It is urged that within a reasonable time the minimum requirements as given in paragraph (b) will be enlarged to include an additional year in university physics, chemistry, biology and a reading knowledge of at least one modern language, preferably German or French.

B. Preliminary Examination.—The preliminary examination should be taken before the board of medical examiners or its authorized agent, and should represent the work of 15 units (30 points or credits or 75 counts) in accordance with the above outline. Under no circumstances must this examination be given by any one connected with the medical college.

Later, when the requirement is considered reasonable, university courses in physics, chemistry, biology and modern languages should be required in this examination.

2. Medical Education.—The medical college should give a strictly graded course covering four years of not less than thirty weeks each year, exclusive of holidays. Each year should cover not less than thirty hours per week of scheduled class room work in lectures, recitations, laboratory and clinical work. At least forty-two calendar months should elapse between the dates of matriculation and graduation. The complete course should approximate 3,600 hours and include:

(a) Two years of study, consisting largely of laboratory

work in anatomy, histology, embryology, physiology, chemistry, pharmacology, physiologic chemistry, bacteriology and pathology.

(b) Two years of clinical work largely in hospitals and dispensaries, with thorough courses in internal medicine (including physical diagnosis, pediatrics, nervous and mental diseases), surgery (including surgical anatomy and operative surgery on the cadaver), obstetrics, gynecology, materia medica, pharmacology, laryngology, rhinology, ophthalmology, otology, dermatology, hygiene and medical jurisprudence. There should also be a laboratory course in clinical microscopy, including hematology, and the hospital courses should be accompanied by work in properly equipped clinical laboratories.

3. Advanced Standing.—(a) Advanced standing may be granted to the extent of three years of work taken at other recognized colleges.

(b) In giving advanced standing the college should not discriminate against its own full-course students. It is meant by this that students should not be given full standing when they come from colleges not giving equivalent courses.

(c) Before granting any advanced standing the dean or secretary of the school to which the student seeks admission should obtain from the corresponding officer of the school from which the student comes a full statement of his credentials, so far as preliminary and medical education is concerned, together with the standing of the student in each course he has taken.

4. Graduation.—The medical college should require of each student before graduation:

(a) Compliance with the above given requirements of preliminary and medical education.

(b) An attendance of at least 80 per cent. on each course of instruction above mentioned.

(c) The passing of a final examination in each course of instruction above mentioned with a percentage of at least 75.

(d) The individual dissection of at least one lateral half of a human cadaver.

(e) The individual attendance on and management of at least two maternity cases.

(f) The work of at least the fourth or senior year must be taken in the medical college granting the degree.

II. EQUIPMENT AND FACILITIES.

1. Buildings.—The medical college buildings should be well lighted, sanitary and commodious, with ample space for laboratories, amphitheaters, examining, lecture, recitation and special research rooms, as well as storage rooms and a suitable place for such animals as are used in experimental work.

2. Laboratories.—There should be well-equipped laboratories for practical anatomy, histology, embryology, physiology, chemistry, physiologic chemistry, pharmacology, bacteriology and pathology, and these laboratories should be officered by trained instructors paid to devote their entire time to the preparation of materials used in instruction and to teaching and research. By a well-equipped laboratory is understood a laboratory provided with all the microscopes and other apparatus necessary to enable each student to carry on the work of that department intelligently and successfully.

3. Hospitals, Dispensaries and Clinical Facilities.—(a) The main hospital and dispensary should be in close proximity to the college building, of easy access to the students, and should be under the control of the college at least so far as clinical material is concerned.

(b) The hospital material available for clinical purposes should be in proportion to a daily average of at least 200 patients to 100 students in the senior class.

(c) The dispensary material should be carefully classified and properly used.

4. Library, Museum, Charts, Etc.—(a) Library: The medical college should have a working medical library, including the more recent text and reference books, as well as ten or more of the chief medical periodicals. This library room should be easily accessible to the students, should be provided with suitable tables and chairs, and should have an attendant in charge.

(b) Museum: There should be a medical museum having its various anatomic, embryologic, pathologic and other specimens carefully prepared, labeled and indexed in order that any specimen may be easily found and employed for teaching purposes. The value of the pathologic collection could be greatly augmented by having slides showing the microscopic findings in each case carefully prepared, labelled, indexed and kept easily accessible. Clinical records of these cases should also be drawn up, indexed and filed for easy reference.

(c) Charts, Models, Stereopticons, Etc.—The medical college should have a supply of anatomic charts, embryologic models and other apparatus, such as a stereopticon or a reflectoscope, as well as microphotographic, Roentgen ray or other apparatus, which would be of service in the teaching of medicine.

III. CONDUCT OF THE COLLEGE.

1. The medical college should literally observe its published requirements for admission, tuition, time of attendance on the sessions and graduation, which it should definitely set forth, together with complete lists of its matriculates and annual graduates, in regular annual catalogues or announcements.

2. New medical colleges may be recognized on application if on examination they are found to comply with the above requirements.

(To be continued.)

Reports to the House of Delegates

REPORTS OF OFFICERS.

Advance Presentation of Reports of Officers and Committees for the House of Delegates at the Chicago Session.

The following are reports of officers and committees which will be presented to the House of Delegates at the fifty-ninth annual session of the American Medical Association, to be held at Chicago, June 2-5, 1908. They are printed here that all who are interested may become acquainted with their contents in advance.

Report of the General Secretary.

To the Members of the House of Delegates of the American Medical Association:

Gentlemen:—I submit herewith my report for the year 1907-1908.

MEMBERSHIP.

The membership of the American Medical Association on May 1, 1907, was 27,515. During the past year 252 members have died, 1,227 have resigned, 396 have been dropped for non-payment of dues, 412 have been dropped as not eligible under Section 1, Chapter 1, Book 1 of the By-laws, and 57 names have been removed from the rolls on account of being reported "not found" or on account of mail returned by the postoffice department. This gives a total loss during the year of 2,344 names. During the year there have been added 6,172 names, of which 3,890 were subscribers to THE JOURNAL previous to becoming members of the Association, while 2,282 were new members joining direct. The membership on May 1, 1908, was 31,343, giving a net gain for the year of 3,828.

COMMITTEES APPOINTED.

September, 1907, the President appointed the following as the Committee on Nomenclature and Classification of Diseases: Drs. Frank P. Foster, New York, Chairman; W. A. N. Dorland, Pennsylvania; Victor C. Vaughan, Michigan; Alexander Duane, New York; J. Chalmers Da Costa, Pennsylvania.

Dr. William H. Welch having resigned as a member of the Committee on Medical Legislation, the President appointed Dr. J. B. Roberts, Philadelphia, to fill the unexpired term.

BRANCH ASSOCIATIONS.

The report of the Committee on Organization regarding branch associations, made at the session for 1907, was referred to the Reference Committee on Reports of Officers, which committee recommended that the report be referred to the state associations, with an urgent request for an expression of their views, to be presented to the Association at the next annual session. In accordance with these instructions, a letter was sent to the secretary of each of the constituent state associations, in September, asking that this question be brought before the state association at its annual meeting. Early in April, 1908, a second letter on this subject was sent to all state secretaries. Acknowledgement of the receipt of these communications has been received from 34 states. Of these, two (Delaware and Maryland) voted in favor of branch associations, seven (Colorado, Idaho, Massachusetts, New York, Rhode Island, Ohio and Pennsylvania) voted against and twenty-five, at this date—May 12, 1908, have taken no action.

REPORTS OF COMMITTEES.

At the 1907 session the House of Delegates instructed the Secretary to send to each member of the House of Delegates

at least two weeks before the annual session, printed copies of the reports of all committees. The instructions of the House have been complied with so far as possible.

UNIFORM REGULATIONS REGARDING MEMBERSHIP.

Membership in good standing in an affiliated society or association has always been a requirement for membership in this Association. Previous to the reorganization, the enforcement of this provision was practically impossible. Since the uniform plan of organization was adopted, accurate information regarding membership in the county and state societies is obtainable. Much difficulty is encountered, however, in enforcing the provisions of the by-laws regarding membership, since different state associations have different rules on such subjects as the date of the beginning of the fiscal year, the date at which dues must be paid, the length of time allowed a delinquent member in which to reinstate himself before forfeiting his membership, the date when reports are due from county societies, etc. Owing to these varying conditions, it is exceedingly difficult to enforce the membership qualifications of the by-laws with equity and fairness. It is furthermore confusing to a member removing from one state to another to find an entirely different set of regulations and provisions regarding these matters. As the Association and its various constituent parts have become better organized, and as the work of the various secretaries has become more burdensome. it is necessary to formulate a uniform system of procedure for the various state associations and component county societies to follow. Much of the correspondence now being carried on between state and county secretaries and the General Secretary's office would be unnecessary were systematic, routine methods devised by which membership matters could be automatically regulated. I therefore recommend that this entire matter be referred to a committee of three, at least two of whom shall be secretaries of constituent state associations, with instructions to secure data regarding the present provision of the constitutions and by-laws of various state associations on these points—as well as the procedure followed by state and county secretaries and to report its findings and recommendations to the House of Delegates at the next annual session.

PORTO RICO AND ALASKA.

As in previous years, a number of communications have been received from physicians practicing in Porto Rico and in Alaska regarding the organization of a constituent association in these territories. In each case the writer has been advised by the General Secretary's office that such an organization was desired and has been urged to take the lead in effecting it. No definite results, however, have as yet been obtained. Correspondence was recently carried on with the secretary of the Northwestern Alaska Medical Association, which asked for recognition from this Association. That officer was advised that inasmuch as the society in question did not take in the entire territory it probably would not be regarded as a territorial association in accordance with Article IV of the Constitution. It was suggested that it would be advisable to organize an association to take in the entire territory and then to apply for recognition as a constituent association. Nothing further has resulted from this correspondence, but it is hoped that before long an association can be organized in each of the above territories that will become a constituent branch of this Association.

THE BULLETIN.

In the fall of 1907 the name of the *Councilors Bulletin* was changed to *The American Medical Association Bulletin*. This seemed advisabe because the field of this publication had expanded until it had become a means of communication between the Association and the officers of all of its component parts regarding any subject connected with medical organization or the welfare of the profession, instead of being limited to matters of interest only to councilors. *The Bulletin* during the past year has been utilized for the distribution of the outline of postgraduate study formulated by the Committee on Organization, two numbers having been devoted to this purpose. Two numbers have been used by the Committee on Medical Legislation, one for a synopsis and abstract of the medical practice acts of the United States, and one for the official minutes of the Conference on Medical Legislation, held in Chicago in December. The fifth number will contain the minutes of the Conference on Medical Education held in Chicago in April, and other matter relating to medical education. The publication of such matter in *The Bulletin* enables the Association to distribute official proceedings, abstracts, etc., to all officers at a minimum cost.

REPRESENTATION IN THE COUNCIL OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

The following invitation has been received, asking the American Medical Association to appoint two of its members to represent it in the Council of the American Association for the Advancement of Science:

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

WASHINGTON, D. C., April 23, 1908.

Dr. George H. Simmons, Secretary,
American Medical Association, Chicago:

My Dear Sir:—For some years past a concerted effort has been in progress to bring together in the council of the American Association for the Advancement of Science a compact body of men who shall represent as completely as possible the scientific interests of America.

To accomplish this end, a change was made in the constitution some time ago and representatives of all of the scientific associations of specific scope, which were at that time affiliated with the American Association for the Advancement of Science, were made members of the council. In this way, practically all of the natural and exact sciences are thus represented.

The council feels, however, that the American Medical Association should be included in order to thoroughly round out this movement and to add strength to the organization. By a special vote of the council of this association, I am empowered and directed urgently to invite your association to appoint two of your members who shall, in consequence of this invitation, become members of this council.

Such action on the part of your association will involve no obligation on its part, but will simply enble us to strengthen our organization by making its membership more thoroughly representative. Yours most truly,

L. O. HOWARD.

I believe that this invitation should receive favorable consideration. At present all of the sciences, such as astronomy, mathematics, physics, chemistry, geology, zoology, botany, anthropology, sociology, and economics, anatomy, physiology and experimental medicine, are represented in the council of the American Association for the Advancement of Science, and it seems both for the interests of medicine as well as of the natural sciences that this representation should include practical and scientific medicine. The voice of medicine should be heard authoritatively in the council of this national scientific body; and there are occasions when it is important that medicine should participate in the deliberations of that body and should lend its support to expressions of opinion on questions of importance, especially when these questions relate directly or indirectly to scientific medicine.

PROGRESS AND BETTER CONDITIONS.

The past year has been one of increasing and unprecedented activity and progress on the part of the organized medical profession. Increased membership has been accompanied by greater interest in society work, higher professional standards and wide range of professional activities. The postgraduate course of county societies has been inaugurated and outlined, the first year of the course being distributed to county society officers through *The Bulletin*. County and state societies as well as individuals are taking much more interest than formerly in public affairs while the public is taking much more interest than formerly in sanitary matters. Much of this change in sentiment is due to the splendid work of Dr. J. N. McCormack, whose tours have invariably been followed by better feeling and more hearty cooperation between the profession and the public. The work of systematic organization and the stimulation of county societies should be continued until every reputable, ethical and public spirited physician in the United States is a member of his county society and laboring for the public good.

Respectfully submitted.

GEORGE H. SIMMONS, General Secretary.

Report of the Board of Trustees for the Year 1907.

To the Officers and Members of the House of Delegates and of the American Medical Association:

As required by the By-Laws, your Board of Trustees herewith presents you with a report of the result of the work done in the office of THE JOURNAL of the Association for the fiscal year ending Dec. 31, 1907. We shall endeavor to make this report so plain and explicit that one will not need to be an expert accountant to comprehend it fully in all its details. As has been our custom for several years, we present first the report of "The Investor's Audit Company of Chicago," which has carefully gone over all of the business of THE JOURNAL office and the books and vouchers of the Treasurer of our Association. This examination by a chartered company is done, just as most of the business enterprises of the day are having such work done, by parties in no way interested in the result of

such investigations; and hence can be partial neither to the Board nor to THE JOURNAL office. Of course, in a business enterprise of such magnitude as that of the publication of THE JOURNAL, no one could expect the Board of Trustees personally to undertake such work. This report is given in full as follows:

THE INVESTORS AUDIT COMPANY.

CHICAGO, Jan. 11, 1908.

To the Board of Trustees of the American Medical Association, Chicago, Ill.

Gentlemen:

We beg to report that we have examined the books and vouchers of the American Medical Association for the year ended Dec. 31, 1907, and we hand you herewith the following statements:

Comparative Balance Sheet as at Dec. 31, 1906 and 1907.
Revenue Account for the year ended Dec. 31, 1907.
Disposition of Revenue for the year ended Dec. 31, 1907.
Net Investment in Second Edition of Directory.
Inventory of Materials and Supplies.
Details of Bond Account.
Summary of Publication Expenses.
Summary of Organization.
Summary of Association.
Summary of Medical Legislation.
Summary of Medical Education.
Summary of Depreciation.

We would call your attention to the following items in the attached accounts:

On the balance sheet you will notice the item of "Net Investment in second edition of Directory, $5.809.24." This account represents expenditures to date on the second edition of the Directory and consists principally of salaries and other expenditures for revising and bringing up to date the information necessary to complete the second edition.

In the Revenue Account is charged off the expenditures over receipts on the first edition of the Directory, $18,427.44. In connection with this item, we would point out that the loss on the first edition of the directory as shown in the account, includes the following expenditures, the result of which should prove of considerable value in getting out future editions:

Editorial and office salaries	$18,007.73
Composition and proof reading	8,744.92
Amount paid for property of the Standard Directory	6,176.32
Amount paid for Information	8.291.02

With the above comments we believe the statements attached hereto to be self-explanatory, and are prepared upon similar lines of those furnished in previous years.

In the course of our audit we have examined vouchers for all cash disbursements, with the excention of a few issued during the latter part of the year which had not been returned by the bank and these will be examined by us later and if any remain missing we will report to you upon the same. In checking these vouchers for disbursements we have taken care to satisfy ourselves that invoices or other original evidence of the nature of the disbursement were attached to the receipts. Also that the vouchers had been approved by the proper parties and that the invoices had been checked for receipt of goods, prices and extensions.

We verified the cash in bank by means of statements furnished by the bankers and the cash on hand by actual count.

We have examined the securities in the possession of the Treasurer and found them to be in order.

In the bookkeeping and office work the standard of the last few years appears to have been maintained.

We shall be glad to furnish you with any further information in our possession that you may require regarding these accounts.

Yours faithfully,

THE INVESTORS AUDIT COMPANY.
E. M. MILLS, Manager.

EXHIBIT A.

COMPARATIVE BALANCE SHEET AS AT DEC. 31, 1906 AND 1907.

ASSETS.

Dec. 31, 1906.		Dec. 31, 1907.
$111,781.91	Real estate and buildings	$112,937.04
45,531.08	Machinery	49,006.76
	Stereotype plant	1,646.95
6.862.43	Furniture and fixtures	7,203.06
1,175.16	Library	1,175.16
43,820.66	Net investment in first edition of Directory to date.	
	Net investment in second edition of Directory to date (see Exhibit D)	5,809.24
14,336.59	Inventory of materials and supplies (see Exhibit E)	19,151.70
40,199.38	Bonds at cost (see Exhibit F)	54,231.88
	Certificate of deposit	15,000.00
	Bills receivable	13.50
14,837.17	Accounts receivable:	
	Chicago Postmaster deposit $ 460.00	
	Advertising 13,824.23	
	Directory (proportion considered good) 3,000.00	
	Reprints 936.35.	
	Sundry 82.40	18,302.98
13,023.51	Cash:	
	Treasurer's account $20,118.84	
	Office 4,408.95	
	Petty cash 50.00	24,577.79
	Rental paid in advance—first installment	250.00
$291,567.89		$309,306.06

LIABILITIES.

$ 21,906.00	Accounts payable		$ 7,435.41
	Advance payments on "The Archives of Internal Medicine"	$ 232.50	
	Less: Commissions	12.00	220.50
$269,661.89	Balance: Being excess of assets over liabilities		$301,650.15
$291,567.89			$309,306.06

EXHIBIT B.

REVENUE ACCOUNT FOR THE YEAR ENDED DEC. 31, 1907.

INCOME:		
Advertising	$ 119.694.67	
Subscriptions	90,570.50	
Dues	122,827.19	
Jobbing	23,747.96	
Reprints	7,542.12	
Books	8,215.14	
Physicians' Manual of U. S. Pharmacopeia and N. F.	2,772.11	
Buttons	1,330.28	
Rents of Association properties	3,200.00	
Sale of waste paper,, sweepings, paper cases, etc.	2,276.12	
Interest on bonds	1,660.00	
Interest on daily bank balances	594.80	
Interest on certificates of deposit	600.00	$385,030.89
DEDUCT:		
Publication expenses (see Exhibit G)	$ 278,995.27	
Organization expenses (see Exhibit H)	9,349.77	
Association expenses (see Exhibit I)	4,701.21	
Medical legislation (see Exhibit J)	2,573.22	
Medical education (see Exhibit K)	5,538.27	
Bureau of information	3,000.00	
Depreciation (see Exhibit L)	6,821.23	
Pharmacy and chemistry	4,705.90	
Books	5,885.34	
Physicians' Manual of U. S. Pharmacopeia and N. F.	2,900.00	
Buttons	1,075.08	
Insurance and taxes	1,905.38	
Discount	1,431.57	
Exchange	1,037.07	
Building maintenance	1,424.71	
House expense	345.97	
Commissions for securing new members	328.60	
Bad debts written off, less recoveries	1,168.74	
Atlantic City Session	4,499.98	
Loss on sale of machinery	76.62	
Excess of expenses over receipts on first edition of Directory (see introductory above)	18,427.44	
Miscellaneous	30.84	$356,222.21
Net revenue for the year ended Dec. 31, 1907		$ 28,808.68

EXHIBIT C.

DISPOSITION OF NET REVENUE FOR THE YEAR ENDED DEC. 31, 1907.

INCREASE IN ASSETS:		
Real estate and buildings	$ 1,155.13	
Machinery	3,475.68	
Stereotype plant	1,646.95	
Furniture and fixtures	340.63	
Bonds and certificates of deposit	29,032.50	
Inventory	4,815.11	
Bills receivable	13.50	
Accounts receivable	3,465.81	
Cash	11,554.28	
Rental paid in advance	250.00	
Net investment in second edition of Directory	5,809.24	
	$61,558.83	
ADD: DECREASE IN LIABILITIES:		
Accounts payable	14,470.59	$ 76,029.42
DEDUCT: DECREASE IN ASSETS:		
Net investment in Directory	$ 43,820.66	
INCREASE IN LIABILITIES:		
Advance payments on "The Archives of Internal Medicine"	220.50	
Items applicable against a prior period.	3,179,58	$ 47,220.74
Net revenue for the year ended Dec. 31, 1907		$ 28,808.68

EXHIBIT D.

SUMMARY OF NET INVESTMENT IN SECOND EDITION OF DIRECTORY AS AT DEC. 31, 1907.

Express	$ 22.88
Postage	187.84
Information	153.96
Salaries	5,187.75
Jobbing	186.25
Miscellaneous	70.56
	$5,809.24

EXHIBIT E.

SUMMARY OF INVENTORY AS AT DEC. 31, 1907.

Paper stock	$ 7,043.81
Books	2,012.91
Physicians' Manuals	1,224.09
Buttons	146.84
Fuel	164.00
Ink	250.90
Type	3,119.71
Metal	5,189.44
	$19,151.70

EXHIBIT F.

DETAILS OF BOND ACCOUNT AS AT DEC. 31, 1907.

	Par value.	Cost.
5 Atchison, Topeka & Santa Fe Ry. Co. 4 per cent. 100-year gold bonds	$ 5,000.00	$ 4,988.75
5 Erie R. R. Co. 4 per cent. gold bonds	5,000.00	4,932.50
5 Baltimore & Ohio R. R. Co. first mortage 4 per cent. bonds	5,000.00	5,032.50
5 Reading Company general mortgage 4 per cent. bonds	5,000.00	4,870.00
5 Union Pacific R. R. Co. first mortgage 4 per cent. bonds	5,000.00	5,207.50
14 City of Chicago 4 per cent. school bonds.	14,000.00	15,168.13
5 Reading Co. and the Philadelphia and Reading Coal and Iron Co. general mortgage 4 per cent., payable January and July, Nos. 29367, 29366, 24483, 24482, 66964, par value of $1.000.00 each at 94½	5,000.00	4,732.50
5 Atchison, Topeka & Santa Fe Ry. first mortage 4 per cent., payable April and October. Principal due 1995. Nos. 32785, 35162, 40517, 40516, 40515, par value of $1,000.00 each at 90¼.	5,000.00	4,532.50
5 Baltimore & Ohio Ry. Co. first mortgage 4 per cent., payable April and October. Principal due 1948. Nos. 53591, 53594, 53593, 34986 and 34987. Par value of $1,000.00 each at 95	5,000.00	4,767.50
	$54,000.00	$54,231.88

EXHIBIT G.

SUMMARY OF PUBLICATION EXPENSES AS AT DEC. 31, 1907.

Paper		$89,548.80
Type, metal and electros		3,956.22
Ink		3,500.65
Salaries		34,655.75
Pay roll		75,799.68
Editorial news and reporting		6,610.60
Binding		2,221.34
Machinery, repairs and renewals		1,750.77
Commissions:		
Advertising	$270.48	
Subscription	10,859.19	
Sales	6.66	
Collection	1,970.28	
		13,106.61
Power		2,516.11
Light		2,108.45
Fuel		676.57
Postage:		
First class	$11,008.65	
Second class	19,203.65	
		30,212.30
Factory supplies		2,645.56
Office jobbing		2,718.45
Express and cartage		2,307.16
Miscellaneous expense		4,660.27
		$278,995.27

EXHIBIT H.

SUMMARY OF ORGANIZATION ACCOUNT AS AT DEC. 31, 1907.

Dr. J. N. McCormack:		
Salary for year 1907	$4,999.92	
Sundry expenses	1,751.00	
		$6,750.92
Salary J. H. Blackburn		300.00
Agents' expenses		1,910.60
Jobbing		323.93
Books		25.90
Postage		18.30
Miscellaneous		20.12
		$9,349.77

EXHIBIT I.

SUMMARY OF ASSOCIATION ACCOUNT AS AT DEC. 31, 1907.

Salary Assistant to the General Secretary	$1,200.00
Trustees' meetings	1,508.45
Sections' secretaries' expense	600.00
Honorarium, Treasurer	300.00
Scientific research	200.00
Jobbing	284.35
Committee on Reciprocity, Dr. W. L. Rodman	130.40
Premium on bond	75.00
Freight and express	33.48
One-half court costs, Lawson case	250.00
Postage	61.13
Binding	44.00
Miscellaneous	14.40
	$4,701.21

EXHIBIT J.

SUMMARY OF MEDICAL LEGISLATION AS AT DEC. 31, 1907.

Dr. C. A. L. Reed, traveling and office expenses	$552.15
Reporting	178.50
Jobbing	332.70
Postage	369.22
Pay roll	954.00
Meetings	104.85
Traveling	19.50
Supplies	53.45
Miscellaneous	8.85
	$2,573.22

EXHIBIT K.

SUMMARY OF MEDICAL EDUCATION AS AT DEC. 31, 1907.

Salaries	$1,833.32
Meetings	414.25
College inspection	1,700.90
Pay roll	823.00
Postage	337.25
Jobbing	229.50
Traveling	50.40
Reporting	70.00
Supplies	28.33
Information	47.00
Miscellaneous	4.32
	$5,538.27

EXHIBIT L.

SUMMARY OF DEPRECIATION AS AT DEC. 31, 1907.

Building	$1,410.61
Machinery	4,494.11
Furniture and fixtures	693.31
Laboratory equipment	140.33
Stereotype plant	82.87
	$6,821.23

TREASURER'S REPORT.

REPORT OF THE TREASURER FOR THE YEAR ENDING DEC. 31, 1907.

RECEIPTS.

1906.	
Dec. 31—Cash balance in bank	$11,697.38
1907.	
Feb. 1—Cash received from Editor of JOURNAL	10,000.00
May 1—Cash received from Editor of JOURNAL	15,000.00
June 1—Cash received from Editor of JOURNAL	10,000.00
Aug. 6—Interest at 3 per cent for 6 months on $15,000 certificate of deposit, Feb. 2 to Aug. 6, 1907	225.00
Nov. 5—Interest at 3 per cent for 6 months on $15,000 certificate of deposit, May 5 to Nov. 5, 1907	225.00
Nov. 5—Deposit in checking account from certificate of deposit	15,000.00
Dec. 6—Interest at 3 per cent. for 6 months on $10,000 certificate of deposit, June 6 to Dec. 6, 1907	150.00
Dec. 6—Deposit in checking account from certificate of deposit	10,000.00
Interest coupons on 5 $1,000 bonds for 6 months	100.00
Interest coupons on 39 $1,000 bonds, 4 per cent	1,560.00
Interest 2 per cent. on daily balance (on $5,000 or more) of checking account for 1907	193.96
	$74,151.34

DISBURSEMENTS.

1907.	
Feb. 2—By order of Trustees, placed on special deposit in First Trust and Savings Bank at 3 per cent	$10,000.00
May 5—By order of Trustees, placed on special deposit in First Trust and Savings Bank at 3 per cent	15,000.00
June 6—By order of Trustees, placed on special deposit in First Trust and Savings Bank at 3 per cent	10,000.00
Nov. 21—Paid on order of Trustees for 5 $1,000 4 per cent. bonds	4,532.50
Dec. 9—Paid on order of Trustees for 5 $1,000 4 per cent. bonds	4,767.50
Dec. 16—Paid on order of Trustees for 5 $1,000 4 per cent. bonds	4,732.50
Dec. 31—Cash balance in checking account at First National Bank	20,118.84
	$74,151.34

PROPERTY OF AMERICAN MEDICAL ASSOCIATION IN HANDS OF TREASURER, JAN. 1, 1908.

Cash balance in checking account First National Bank, Chicago			$20,118.84
Certificate of deposit at 3 per cent. in First Trust and Savings Bank			15,000.00
	Cost.	Par value.	
5/1000 bonds U. P. Ry., 1st 4s	$ 5,207.50	$5,000	
5/1000 bonds Erie Ry., 1st 4s	4,932.50	5,000	
10/1000 bonds Reading Gen. 1st 4s.	9,602.50	10,000	
14/1000 Chicago School bonds, 1st 4s	15,163.13	14,000	
10/1000 A., T. and S. Fe bonds, 4s	9,521.25	10,000	
10/1000 B. & O. bonds, 1st 4s	9,800.00	10,000	
	$54,226.88	$54,000	54,000.00
			$89,118.84

Respectfully submitted,

FRANK BILLINGS, *Treasurer.*

As a further comparative table we submit the following:

EXHIBIT M.

Amount received from	1906.	1907.		
Dues.	$103,076.10	$122,827.19	Gain	$19,751.09
Subscriptions.	87,694.97	90,570.50	Gain	2,875.53
Advertisements	98,458.85	119,694.67	Gain	21,235.82
Jobbing.	18,707.22	23,747.96	Gain	5,040.74
Reprints.	5,417.75	7,542.12	Gain	2,124.37
Buttons	1,519.89	1,330.28	Loss	189.61
Interest.	2,537.25	2,854.85	Gain	317.60
Rents	3,240.00	3,200.00	Loss	40.00
Books	$3,008.56	8,215.14	Gain	5,207.58

The above embraces the most important items, showing a substantial gain in every case except two—buttons and rents. In the item of rents we explain with the statement that we are now using the house next to THE JOURNAL office, and thus our rent account will be still further reduced hereafter. As our business increases, more space will be needed for storage purposes, especially for keeping a supply of paper. There was used in the office, including mailing paper, the past year, 1,051 tons of paper, a fraction more than twenty tons—about one car load—each week. You can easily see the space needed for storage purposes of this one item. Up to the present time, the office has been keeping about one week's supply ahead, but in view of possible strikes, which grow more frequent, it will be wise to keep more than double that amount on hand, or perhaps enough to supply the office for one month, thus demanding much space.

ADVERTISING.

The amount received from advertising during the year was $119,694.67.

During the year, there were 257 pages unproductive of cash income, and were not reckoned in the earnings above mentioned. These pages were devoted to "Contents and Digest," Association and JOURNAL announcements, national and state society announcements, "New and Non-Official Remedies," "Index to Advertisements," etc.

In 1906 the income from advertising was $98,458.85; in 1907, $119,694.67—an increase of $21,235.82. This in spite of the fact that there was a decrease of 157 productive advertising pages. This increased income, of course, is the result of an increase in the rates. The decrease in the number of advertising pages comes from the fact that we have strictly adhered to the rules of the Council on Pharmacy and Chemistry regarding the acceptability of advertisements. Owing to the financial stringency, however, the outlook is not as promising for 1908 as for the past year.

SUBSCRIPTION DEPARTMENT.

The regular weekly issue of THE JOURNAL of the American Medical Association, from January 5, 1907, to December 28, 1907, inclusive, 52 issues, was as follows:

January 5	50,108		July 6	52,342	
January 12	50,150		July 13	52,007	
January 19	49,440		July 20	51,508	
January 26	49,108		July 27	51,966	
		198,806			207,823
February 2	49,270		August 3	51,625	
February 9	49,264		August 10	51,883	
February 16	49,261		August 17	54,882	
February 23	49,460		August 24	51,399	
		197,255	August 31	52,030	
					261,819
March 2	49,197				
March 9	49,333		September 7	52,799	
March 16	52,333		September 14	53,644	
March 23	52,492		September 21	53,001	
March 30	52,420		September 28	53,725	
		255,775			213,169
April 6	52,670		October 5	53,608	
April 13	51,783		October 12	54,263	
April 20	51,559		October 19	54,080	
April 27	51,712		October 26	54,021	
		207,724			215,972
May 4	54,593		November 2	54,073	
May 11	50,584		November 9	53,123	
May 18	52,463		November 16	52,986	
May 25	53,116		November 23	51,460	
		210,756	November 30	53,992	
					265,634
June 1	53,278				
June 8	51,117		December 7	54,149	
June 15	52,371		December 14	55,164	
June 22	52,460		December 21	55,090	
June 29	51,925		December 28	55,006	
		261,151			219,409

Total issued for twelve months 2,715,293
Weekly average 52,217

The total number of copies issued during 1907 was 2,715,293; the total number of copies issued during 1906 was 2,416,877, indicating an increase of 298,416, or about 12.5 per cent. over 1906.

The following is an approximate count of the mailing list of members and subscribers by states on January 1, 1908. It also indicates the gain or loss in each state during 1907. Copies sent to the Medical Department of the United States Army, Bureau of Medicine and Surgery (Navy), United States Public Health and Marine-Hospital Service, and foreign, are omitted.

State.	Members.	Subscribers.	Totals.	Gain. for Year.	Loss for Year.
Alabama	376	282	658	64	...
Arizona	76	39	115	13	...
Arkansas	413	499	912	321	...
Alaska	3	5	8	3	...
California	1,063	523	1,586	107	...
Colorado	453	269	722	95	...
Connecticut	411	226	637	48	...
Delaware	59	26	85	5	...
Dist. of Columbia	272	191	463	41	...
Florida	132	104	236	20	...
Georgia	354	245	599	15	...
Idaho	79	49	128	...	1
Illinois	2,378	2,179	4,557	280	...
Indiana	926	561	1,487	...	62
Indian Territory	125	217	342	75	...
Iowa	885	709	1,594	...	60
Kansas	611	483	1,094	...	24
Kentucky	644	438	1,082	22	...
Louisiana	406	312	718	16	...
Maine	253	118	371	18	...
Maryland	502	368	870	76	...
Massachusetts	1,750	631	2,381	45	...
Michigan	920	862	1,782	161	...
Minnesota	752	421	1,173	153	...
Missouri	1,282	1,076	2,358	...	28
Mississippi	283	256	539	26	...
Montana	121	67	188	12	...
Nebraska	421	315	736	...	18
Nevada	46	22	68	8	...
New Hampshire	228	63	291	10	...
New Jersey	655	297	952	67	...
New Mexico	91	62	153	27	...
New York	2,780	1,959	4,739	837	...
North Carolina	245	232	477	...	8
North Dakota	171	168	339	27	...
Ohio	1,740	1,252	2,992	219	...
Oklahoma	197	174	371	95	...
Oregon	212	129	341	1	...
Pennsylvania	2,661	1,380	4,041	581	...
Rhode Island	218	74	292	21	...
South Carolina	203	168	371	...	37
South Dakota	183	133	316	21	...
Tennessee	466	337	803	...	13
Texas	1,130	816	1,946	535	...
Utah	95	74	169	18	...
Vermont	174	39	213	...	4
Virginia	380	250	630	...	20
Washington	343	232	575	61	...
West Virginia	318	170	488	...	10
Wisconsin	770	506	1,276	47	...
Wyoming	41	40	81	9	...

The following figures indicate the count of the mailing list Jan. 1, 1908, compared with that of Jan. 1, 1906 and 1907:

	Jan. 1, 1906.	Jan. 1, 1907.	Jan. 1, 1908.
Copies to members	20,826	26,255	29,382
Copies to subscribers	17,669	20,166	20,880
Copies to exchanges	216	214	200
Copies to advertisers	310	293	276
Complimentary (libraries, medical colleges, etc.)	240	242	249
	39,261	47,170	50,987

The following table shows the number of members and of subscribers for each year, commencing with 1899:

	Members.	Subscribers.
January 1, 1899	7,997	2,453
January 1, 1900	8,445	4,633
January 1, 1901	9,841	8,339
January 1, 1902	11,107	10,795
January 1, 1903	12,553	12,378
January 1, 1904	13,899	14,674
January 1, 1905	17,570	15,698
January 1, 1906	20,826	17,669
January 1, 1907	26,255	20,166
January 1, 1908	29,382	20,880

The above tables indicate an increase in members and subscribers of 3,841 during 1907 over 1906. During the year,

however, there were actually 12,196 additional names placed on the mailing list; 8,355 represent the discontinuances by deaths, non-payment of dues and subscription, ineligibility to membership, and resignations. As heretofore the greater portion of the increase in membership came from the subscription department by transfer. As in previous years, we are continually suggesting to subscribers who are eligible to become members, and as a result of this 3,722 names have been transferred from the subscription to the membership list during the year.

PERCENTAGE OF PHYSICIANS RECEIVING THE JOURNAL.

This table gives the number of physicians (based on the American Medical Directory, first edition) in the United States, and the number receiving THE JOURNAL, and the percentage in each state. Copies to physicians in the United States Army, United States Navy, Marine-Hospital Service, etc., omitted:

State.	Physicians in State.	Number receiving Journal.	Approximate per cent.
Alabama	2,117	658	31.0
Arizona	203	115	56.6
Arkansas	2,322	912	39.2
Alaska	57	8	14.0
California	3,990	1,586	39.7
Colorado	1,550	722	46.5
Connecticut	1,332	637	47.0
Delaware	222	85	38.2
Dist. of Columbia	1,100	463	42.0
Florida	619	236	38.1
Georgia	2,778	599	21.5
Idaho	259	128	49.4
Illinois	9,419	4,557	47.3
Indian Territory	964	342	35.4
Indiana	4,908	1,487	30.2
Iowa	3,517	1,594	45.3
Kansas	2,321	1,094	47.1
Kentucky	3,761	1,082	28.8
Louisiana	1,551	719	46.4
Maine	1,116	371	33.2
Maryland	1,810	870	48.0
Massachusetts	5,372	2,381	44.3
Michigan	4,066	1,782	43.8
Minnesota	1,946	1,173	60.2
Mississippi	1,760	539	30.6
Missouri	5,956	2,358	39.5
Montana	335	188	56.1
Nebraska	1,668	736	44.1
New Hampshire	646	291	45.0
New Jersey	2,332	952	40.8
New Mexico	221	153	69.2
New York	11,982	4,739	39.5
Nevada	138	68	49.2
North Carolina	1,453	477	32.0
North Dakota	451	339	75.1
Ohio	7,710	2,992	38.8
Oklahoma	905	371	40.9
Oregon	696	341	48.9
Pennsylvania	9,957	4,041	40.6
Rhode Island	727	292	40.1
South Carolina	1,023	371	36.2
South Dakota	545	316	57.9
Tennessee	2,980	803	26.9
Texas	4,825	1,946	40.3
Utah	304	169	55.6
Vermont	646	213	32.9
Virginia	1,945	630	32.4
Washington	1,023	575	56.2
West Virginia	1,409	488	34.6
Wisconsin	2,430	1,276	52.5
Wyoming	174	81	46.5

North Dakota shows the largest percentage of physicians receiving THE JOURNAL, viz., 75.1 per cent, with New Mexico next with 69.2 per cent., and South Dakota third with 57.9 per cent.; while Georgia has the smallest, 21.5 per cent.. Tennessee next with only 26.9 per cent., and Kentucky with 28.8 per cent. This is not a pleasant page to dwell on. At least one-half the profession in every state should be subscribers to THE JOURNAL.

REAL ESTATE.

No special repairs have been made on the houses during the past year, excepting that there has been added to the cost of the property—as an asset—three-fifths of the costs of repaving the alley, which amounts to $195.72.

The following table indicates the receipts and disbursements of the Association properties located at 95-97-99 Dearborn Avenue and 239-41 Indiana Street:

RECEIPTS.

The following statement covers rents received:

239-241 Indiana St.	$1,520.00
95 Dearborn Ave.	720.00
97 Dearborn Ave.	600.00
99 Dearborn Ave.	360.00
Total	$3,200.00

DISBURSEMENTS.

The following statement covers the disbursements that have been made for various repairs, etc.:

239-241 Indiana St.	$161.72
95 Dearborn Ave.	55.70
97 Dearborn Ave.	78.20
99 Dearborn Ave.	50.35
Total	$345.97

RECAPITULATION.

	Receipts.	*Disbursements.*
239-241 Indiana St.	$1,520.00	$161.72
95 Dearborn Ave.	720.00	55.70
97 Dearborn Ave.	600.00	78.20
99 Dearborn Ave.	360.00	50.35
One-third taxes Lots 7 and 8		202.22
One-third taxes Lot 6		60.68
Total	$3,200.00	$608.87

Total receipts	$3,200.00
Disbursements	608.87
Net gain	$2,591.13

The above refers only to the houses which occupy three-fifths of the ground owned by the Association.

The net gain is $2,591.13, or approximately 7.5 per cent. on the investment.

Heretofore no depreciation has been charged against these houses, as they were not considered a depreciative asset, but beginning with this year a depreciation should be charged against the buildings, as they are now depreciating in value year by year.

PAPER STOCK.

Last year we called attention to the fact that there had been a considerable increase in the price of pulp and other material that goes into the making of paper and that, naturally, the price of paper had increased. This gradual increase in price has been continuous. After a thorough investigation and a careful comparison of the prices offered by some of the largest mills in the country, we renewed the contract of last year at an advance on the prices of the preceding year.

This increase in the cost of paper should be kept in mind and emphasized when estimating the profits and the increased expenses for the current year. Had we paid last year the price we are now paying for paper, the extra expense would have amounted to practically $5,600 and consequently the profits would have been reduced accordingly.

The following tables gives the amount of paper stock used in reams and tons, and is merely carrying on the statement made to you in previous reports:

	Reams.	Tons.
1898	3,395	157
1899	4,832	230
1900.	6,747	303
1901	9,052	407
1902	10,230	469
1903	12,368	586
1904	14,399	648
1905	17,783	788
1906	21,729	930
1907	25,914	1,029

The above figures do not include the paper used for wrappers in mailing THE JOURNAL, which of itself amounted to nearly twenty-two (22) tons for the year 1907.

You will note that we used in printing THE JOURNAL in 1907 ninety-nine (99) more tons of paper than were consumed in 1906, and within a small amount (20 tons) of seven times as much as was used in 1898.

MACHINERY.

During the past year there has been installed a new gathering machine, which has been of immense advantage, not only in making it possible to get cut THE JOURNAL more rapidly, but also in a considerable saving in the expense of labor.

A Cottrell rotary press has also been installed and works very satisfactorily.

INCREASED EXPENSES.

We submit below the various tables illustrating the gradual increase in expenses. This is merely a continuation of the tables of previous years:

PAY ROLL AND SALARY.

1899	$31,448.69
1900	37,359.49
1901	40,416.01
1902	46,316.65
1903	57,067.34
1904	64,471.26
1905	78,874.79
1906	96,578.71
1907	110,455.43

PAPER STOCK.

1900	$25,598.00
1901	29,835.00
1902	35,675.06
1903	43,966.57
1904	51,190.05
1905	57,526.69
1906	65,381.17
1907	89,548.80

POSTAGE ON JOURNAL.

1899	$ 3,905.65
1900	5,616.06
1901	7,591.37
1902	8,595.63
1903	9,828.41
1904	11,773.44
1905	14,360.28
1906	17,066.62
1907	19,203.65

INK.

1899	$ 718.44
1900	1,145.45
1901	1,753.31
1902	1,930.65
1903	2,055.95
1904	2,225.58
1905	2,765.64
1906	3,500.34
1907	3,500.65

DIRECTORY.

In last year's report, after summarizing the work done on the Directory, we stated that of the future to be:

Keeping up the records regarding the licensed physicians in each state, by adding to the list the names of the new licentiates as they were granted certificates by the licensing boards.

Keeping up the records relative to the graduates of the individual medical colleges.

The compilation of a biographical card index of all physicians.

This work has been carried on.

Of the 161 existing medical colleges, 160 have supplied us with a list of the graduates of 1907.

As soon as the first edition of the Directory was printed, the work was begun of transcribing on cards the biographical data on file for the purpose of getting up a permanent index. This work is being carried on as time permits. This is necessarily slow work, as the names and all dates and statements made regarding the individual must be verified before transferring them to the permanent records.

In compiling the first edition of the Directory, it was impossible to obtain official information regarding the alumni of many colleges, without delaying the publication of the book. The lack of this material was sorely felt, since without it we had no official data as to college of graduation of a large percentage of physicians. Accordingly, as soon as the first edition was published, steps were taken to obtain a complete list of the graduates of all existing medical colleges. This work, necessarily tedious and involving a large amount of correspondence, is very near completion. We have received complete lists from 146 colleges, or all except 15. Of the latter, nine have agreed to furnish the lists, or are at present engaged in preparing them for us; six have thus far been unable to supply this material. In one case the college records were destroyed by fire, and in another only partial reports have been received.

When it is considered that these alumni lists are the only records of graduation, and that if a college goes out of existence, or the records are not kept, this information is lost, the value of our duplicate lists is apparent.

Revisions and corrections of material that forms the basis for the Directory are kept up to date. As the Directory is in type, the next edition will require only a revision of the standing matter.

With a view of ascertaining the opinion of those who are using the Directory, a circular letter and a report blank were sent to each subscriber, asking him to express an opinion as to the advisability of including in subsequent editions statements regarding medical college positions, hospital positions, life insurance positions, as well as general criticisms and comments. Over 2,000 answers have been received. They contain a large number of valuable criticisms and suggestions which will be abstracted and reported later.

As will be noticed, the auditors have charged off $18,427.44 as a loss on the first edition of the Directory. They have explained this in their introductory comments. It is impossible to tell the exact value of the information and material on hand. In the first place, a large part of the amount credited to salaries, etc., was invested in labor that has produced information of as much value for the future as for the past; in other words, basic information. Another portion of the expense went into the composition and make-up. This matter is all standing. The only changes that will be necessary for the next edition will be the corrections and additions necessary to bring it up to date. What percentage of the entire matter this will amount to is uncertain. Consequently, it is impossible to say how much of the old matter can be utilized in the next edition.

It is in accord with conservative business methods, whenever there is a doubt, to give the benefit of the doubt to the debit side of the ledger, and therefore it is better to charge it off to profit and loss.

In this connection it must be remembered that there is charged to the Directory Department the entire expense of accumulating and preserving information regarding the entire medical profession of the United States. This material is used not only for Directory purposes, but also in other departments of the Association, and is at the disposal of the secretaries of state boards, the secretaries of state societies, medical colleges and others who are making use of this mass of information to a constantly increasing extent. It is, in fact, a general bureau of information, in addition to being a basis for the publication of the Directory.

The General Manager was directed to proceed to get out the second edition of our Directory next winter.

APPROPRIATIONS.

As will be noticed by the Auditor's report, the present worth on Dec. 31, 1906, is given as $269,661.89 (see Exhibit A); the present worth Dec. 31, 1907, is given as $301,650.15, making an increase in our assets, or present worth, during the year of $31,988.26, whereas the net profits for the year are given as $28,808.68, a difference of $2,179.58. This is explained in Exhibit C under "Items Applicable Against a Prior Period." This item covers $3,000 which was paid in 1906 to the San Francisco Relief Fund Committee, and returned by the committee in 1907. The balance—$179.58—represents recovery on bad debts charged to profit and loss in 1906.

In nearly every case in which appropriations in sums exceeding $1,000 have been made, the amount set apart has been exceeded. This matter will be discussed at greater length in the subsequent part of this report.

At the last meeting of the Association there were referred to the Board of Trustees by the House of Delegates many requests for appropriations. All of these matters received careful consideration at the hands of the Board.

The request for money with which to secure "certificates of awards and medals," in addition to the customary appropriations for the Committee on Scientific Exhibit, was granted, a sum not to exceed $225 being set apart for that purpose.

There was appropriated to the Board of Public Instruction on Medical Subjects $1,800. This sum was agreed on after consultation with the Chairman of the said Board.

In the matter of postgraduate work, the sum of $600 was asked for. Your Board, after carefully considering the matter, and consulting with Dr. McCormack, included this amount in the reorganization account, setting apart the sum of $7,500 to cover the entire account, including the traveling expenses of the organizer. We feel, however, that it will be extremely difficult to adapt a postgraduate course to the needs of both the city and country physicians, the city and country medical societies. As we could include the entire outlay in one appropriation, we thought it right and proper to test the matter.

In regard to the resolution of Dr. Peterson of Michigan, in reference to supplying THE JOURNAL free to members of the Association of Medical Librarians, investigation shows that THE JOURNAL goes to the libraries belonging to this Association that need this encouragement, as well as to a still larger number of worthy libraries that do not belong to the Association.

The Board of Trustees most respectfully declines to adopt the suggestion of Dr. Marcy of Boston, in regard to appropriating $5,000 toward the erection of a monument to Dr. N. S. Davis. Such a precedent should never be established.

In response to the request for an appropriation for the use of the Anesthesia Commission, we have placed at the disposal of the commission the sum of $200 as finally asked for by the chairman of that body.

In regard to the work of the Bureau of Medical Legislation, where an increase of clerical help is asked for, we would report that arrangements have been made for all such necessary help in THE JOURNAL office, and the office is prepared to send out all literature on very short notice.

In addition to the above special appropriation already mentioned, we present you the balance sheet of the appropriations made at the June and October meetings of the Board, as shown at our February meeting:

APPROPRIATION REPORT TO BOARD OF TRUSTEES, FEBRUARY, 7, 1908.

Pharmacy and Chemistry:		
Appropriation June 4, 1907	$2,500.00	
Appropriation Oct. 25, 1907	2,600.00	$5,100.00
Expenses June 1, 1907, to Feb. 1, 1908	3,444.48	
Balance		$1,655.52
Medical Education:		
Appropriation June 4, 1907	$1,500.00	
Appropriation Oct. 25, 1907	3,000.00	$4,500.00
Expenses June 1, 1907, to Feb. 1, 1908	3,750.93	
Balance		$ 749.07
Medical Legislation:		
Appropriation June 4, 1907	$500.00	
Appropriation Oct. 25, 1907	150.00	$ 650.00
June 1, 1907, to Dr. Reed	161.50	
Oct. 28, 1907, to Dr. Reed	188.60	350.10
Balance		$ 299.90
Expenses, including Dr. Reed's, June 1, 1907, to Feb. 1, 1908		1,581.69
Scientific Research:		
Balance June 1, 1907	$300.00	
Appropriation Oct. 25, 1907	500.00	$ 800.00
Cash to Drs. Pearce & Jackson		200.00
Balance		$ 600.00
Chemical Laboratory:		
Appropriation Feb. 2, 1906		$2,000.00
Cost of equipments to Feb. 1, 1908		940.90
Balance		$1,059.10
Organization:		
Appropriation June 4, 1907		$7,500.00
Dr. J. N. McCormack, expenses	$1,751.00	
Dr. J. N. McCormack, salary, June, 1907, to February, 1908	3,333.28	
Dr. J. H. Blackburn, salary, July, 1907, to February, 1908	350.00	$5,434.28
Balance		$2,065.72
Appropriations Not Yet Used:		
Sections		$ 600.00
Scientific Exhibit		500.00
Exhibit of Hygiene and Sanitary Science		250.00
Gold Medal Scientific Exhibit		225.00
Committee on Pharmacopeia		100.00

NATIONAL ORGANIZER.

Your Board of Trustees feels that the time has fully come when the Association can and should dispense with the expense of a salaried organizer. The services rendered the Association by Dr. McCormack have resulted in an inestimable amount of good. The organization has now, however, been perfected and placed on such a footing that each state should now maintain its own status. There has been expended in this work a sum of not less than $40,000, and while, as already stated, great good has resulted from the special work done in this line, and the profession has received a *quid pro quo* for every dollar spent, yet money is needed to push other undertakings; hence our recommendation to discontinue this branch of our work, putting the matter into the hands of the different state associations. The American Medical Association will ever owe Dr. J. N. McCormack a debt of gratitude for the great work which he has done in his special department. In accord with the recommendation of the House of Delegates made at Atlantic City, June 6, 1907, we arranged with Dr. McCormack to enter vigorously on the work therein suggested. We think that his time can be most profitably employed in presenting pure food matters, and the need of uniform state laws governing the practice of medicine before the legislature of the different states, and as an educator of the public in matters medical, as he has been chiefly doing this year, and we would suggest that he be requested to continue in that work for a time yet.

THE ATLANTIC CITY MEETING AND EXHIBITS.

At Atlantic City the Association went through the first meeting where the Exhibit Hall was controlled by, or through, your Board of Trustees, and where all expenses (except self-assumed ones) were met with our own funds. The receipts from the Exhibit Hall were used as far as possible to defray these necessary expenses, and we feel that the experiment was a great success. The local profession voluntarily taxed itself for certain social functions, but with that we had nothing to do.

The following tabulated account shows receipts and disbursements of that meeting. A study of the report will show that the financial outlay of the Association was but little in excess of that of former years, as most of the items under the head of "Expenses Paid Direct from Association Office" have, as a rule, been met in the same way in former years.

ATLANTIC CITY SESSION.

In Exhibit B is given the item, "Atlantic City Session, $4,499.98." The following statement covers the matter in more detail:

Cash paid Dr. Marvel by Association	$5,368.38	
Cash paid Dr. Marvel by local committee	271.30	$5,639.68
Amount returned to Association by Dr. Marvel		189.09
		$5,450.59

EXPENSES PAID BY DR. MARVEL.

Committee on Meeting Places	$1,412.75	
Committee on Scientific Exhibit	107.50	
Committee on Commercial Exhibit	269.15	
Committee on Local Bulletin	404.88	
Committee on Programs and Printing	271.80	
Committee on Section Entertainments	25.00	
Committee on Badges	1,244.39	
Committee on President's Reception	702.75	
Bureau of Information	96.88	
Bureau of Registration	798.39	
Stenographer for chairman	35.97	
Trustees' committee meetings and expenses	81.13	$5,450.59
Amount received from local committee and not entered on Association books		271.30
Balance		$5,179.29

EXPENSES PAID DIRECT FROM ASSOCIATION OFFICE.

Buttons for delegates' badges and badges	$ 105.60	
Binding programs and receipt books	52.10	
Employés' expenses and transportation	634.79	
Freight and expressage	65.15	
Section reporting	1,632.16	
Reporting House of Delegates	353.15	
Trustees' expenses	1,145.80	
Jobbing	703.21	
Scientific exhibit expense	465.75	$5,157.71

EXPENSES ON ACCOUNT OF EXHIBIT HALL.

Electros, plans, etc	$ 51.68	
Jobbing	35.30	
Clerical expense, telegrams and postage	275.00	$ 361.98
Total		$10,698.98
Less gross income from exhibit hall		6,199.00
Net cost of Atlantic City session		$ 4,499.98

The result of the experiment in so nearly making the meeting self-sustaining has been such as to guarantee in future no desire to return to the old method of managing the affairs of our annual meetings.

REPORTS OF COMMITTEES.

As a number of your committees will report directly to your body, we do not feel that it is incumbent on us as a Board to comment on these reports.

COUNCIL ON PHARMACY AND CHEMISTRY.

As this Council is perhaps more closely allied to the Board of Trustees than any of the others, much of the laboratory

work being done in THE JOURNAL office, it may be permitted us in general terms to commend the great utilitarian work which it is doing. Its importance to the whole medical profession daily becomes more apparent. The work of this Council is referred to in the report of the Surgeon-General of the Public Health and Marine-Hospital Service in the following terms, on page 47: "The chief of the division of pharmacology is a member of the Council on Pharmacy and Chemistry of the American Medical Association. The importance of the work done by this Council and the Association in correcting some of the evils of 'patent' and proprietary medicines is generally recognized. Some flagrant frauds have been exposed, and the profession and the public have been informed that some of the medicines widely advertised as harmless contained dangerous substances, while others claiming powerful action consist of inert and harmless mixtures." The work of this Council has also attracted much favorable attention abroad. This Council has boldly exposed to the medical world some of the most outrageous frauds of the age. The profession can never cease to be under obligations to the Council, and should always endeavor to encourage its members in their work.

THE CHEMICAL LABORATORY.

The chemical laboratory, organized a year ago, has already demonstrated its usefulness. Established primarily to aid the Council on Pharmacy and Chemistry in its work, it has independently examined a considerable number of proprietary remedies and exposed in THE JOURNAL many of those found objectionable or fraudulent. The knowledge that this laboratory is investigating the composition and quality of the remedies prescribed by physicians, and that its reports, through publication in THE JOURNAL, will be brought to the attention of those interested, is bound to have a wholesome effect.

The work, however, is not limited to the examination of proprietary drugs; non-proprietary drugs and preparations, official as well as unofficial, are being examined. Publication of the results of these examinations will cause some firms to improve the quality of their product; to many pharmaceutical manufacturers it will be an incentive to continue the high quality of their products; to physicians these examinations, made by disinterested, thoroughly competent chemists, will enlighten them on the quality of the drugs they prescribe and on which they depend to save the lives of their patients. The laboratory has also added to the value of THE JOURNAL by furnishing to its readers much reliable information on the chemistry and pharmacy of drugs.

COMMITTEE ON REVISION OF THE PHARMACOPEIA.

Pursuant to the request of the House of Delegates made at your last meeting at Atlantic City, 1907, your Board of Trustees, from the names submitted to them by the Section on Pharmacology and Therapeutics appointed the following committee on the pharmacopeia: Reid Hunt, Washington; E. E. Hyde, Chicago; George Dock, Ann Arbor; Robert A. Hatcher, New York; W. S. Thayer, Baltimore; S. Solis-Cohen, Philadelphia, and for the use of that committee appropriated $100.00 to meet the necessary expenses of printing and postage.

NEW MEMBERS OF THE COUNCIL ON PHARMACY AND CHEMISTRY.

From the names sent to the Board of Trustees by the Council on Pharmacy and Chemistry, the following new members were elected: D. L. Edsall, M.D., J. A. Capps, M.D., R. A. Hatcher, M.D., and Otto Folin, Ph.D.

The Council on Pharmacy and Chemistry called the attention of your Board to the need of clinical consultants, and suggested that a staff of clinical consultants should be created. This suggestion was adopted by the Board, and the following were elected as members of such a staff:

Drs. Alexander Lambert, New York City; C. F. Hoover, Cleveland, Ohio; A. S. Taussig, Denver; Charles G. Stockton, Buffalo, N. Y.; John A. Witherspoon, Nashville, Tenn.; John T. Halsey, New Orleans; Alfred Stengel, Philadelphia; George E. de Schweinitz, Philadelphia; H. A. Christian, Boston; George Dock, Ann Arbor, Mich.; Le Roy Crummer, Omaha; H. C. Moffitt, San Francisco; J. L. Miller, Chicago; A. T. McCormack, Bowling Green, Ky.; and L. F. Barker, Baltimore.

THE COUNCIL ON MEDICAL EDUCATION.

While the Council on Medical Education will report directly to your body, we can not refrain from commending in the strongest terms the great work that has been done by the Council in eliminating weak and worthless colleges, and in improving the standard of medical education.

THE BUSINESS AFFAIRS OF THE JOURNAL OFFICE.

As stated by the manager of the Audit Company: "In the bookkeeping and office work, the standard of the last few years appears to have been maintained." The books are so kept that one can easily ascertain, almost at a glance, the status of any desired account. Every officer in any way responsible for any of the moneys of the Association is under bond. All of your property is kept insured. No idle money is allowed. Every special deposit draws interest at the rate of 3 per cent., and daily balances of $5,000 and over draw 2 per cent. We would call your attention to the fact that we have invested $15,000 in 4 per cent. bonds during the past year, giving the Association, at the end of 1907, a total of $54,000 in 4 per cent. bonds, which have cost $54,226.88. The policy of your Board of Trustees has been, and should continue to be, to accumulate a reserve fund in proportion to the money used in its business, sufficiently large to tide THE JOURNAL over any period of financial depression or stringency. Had you no reserve fund during the late money panic some trouble might have been experienced in financing all of your enterprises, but as it was, THE JOURNAL office had no part in the financial maelstrom. We desire to repeat what we have said before: That no business enterprise can be safely conducted without a reserve fund in proportion to its undertakings. Your pay roll last year amounted to more than $110,000; and in addition, you spent for paper, postage and ink a little more than that amount—making more than $200,000 paid out on the four items connected with the publication of THE JOURNAL. About two years ago it was suggested that the reserve fund of the Association should be not less than $150,000. It would be well now to fix the amount at $200,000. That amount would enable you at any time to enlarge your present floor space without interfering in any way with your regular work. The greater the growth of THE JOURNAL and the work connected therewith, the larger should be your reserve fund. A fair proportion of the profit from your publications results from your ability to discount your bills.

PLACE OF MEETING.

For the first time since you have made a home for THE JOURNAL, our session is being held here in Chicago, where every one attending the session is urged to visit the property owned by you. It is the earnest wish of the Trustees that at least every member of the House of Delegates, as the business body of the Association, will visit and become personally acquainted with THE JOURNAL in its own habitat. To see it to the best advantage we would suggest that you call on Thursday and Friday, as every part of the work is then being carried on, but you will be welcomed on any other days that suit your convenience. The House of Delegates is asked to appoint a committee to investigate the whole business of THE JOURNAL. You may never have another such favorable opportunity. It is an easy matter to say to you that you own a modern printing office from which between 50,000 and 60,000 copies of your journal are issued weekly, and that in addition to THE JOURNAL office, you have residence buildings; but when you have seen and examined the property for yourselves; have realized the extent of the equipment; have looked over the presses, linotype machines, our own stereotyping outfit, and everything which goes to make up a modern, up-to-date printing office, together with all the necessary offices, nucleus of a library, and the chemical laboratory, then you can understand what use has been made of the profits from THE JOURNAL office, and you will the more readily understand why we are asking you to help us lay by a sufficient reserve fund for future undertakings.

PRIZE ESSAY.

In reading over the history of the Association regarding its efforts in a scientific way, we learn that on several occasions —first in 1850—prizes have been offered for essays. These prizes have varied from $50 to $100. In 1899 there was offered a prize of $100 for the best essay on subjects to be indicated by a committee. As a result of this offer, only one prize has been awarded. Consequently, the Committee on the Award of the Prize Essay recommended, in 1904, that the prize be withdrawn.

Is it not probable that if the prize had been of larger monetary value, it would have succeeded in bringing out better work and the award of the prize each year? We desire to suggest the advisability of making an annual appropriation of $500 for an essay on subjects relating to internal medicine; that this be awarded as a single prize, or as a first and second prize of, say, $300 and $200. We would further suggest that if this should be adopted that the editorial board of the *Archives of Internal Medicine* should have the management of the award of this prize, or prizes.

We would recommend, further, the following amendment to our By-laws: Amend Book I, Chapter III, of the By-laws by adding the following as Section 9: "Retired members": "Any one who has been a member in good standing of the American Medical Association for twenty years, and who has been placed on the retired list of his state association, shall, on his request, be placed by the Secretary of the A. M. A. on the retired list of the members of this Association. Retired members shall be exempt from the payment of dues."

IN CONCLUSION.

We have endeavored to present to you in a plain, practical manner the work of THE JOURNAL office for the year ending Dec. 31, 1907. We trust that each and every one of you has been able to fully understand the report. As stated a year ago, we have sheets showing in detail all amounts paid each officer and employé connected with the office, giving the name and salary by the week or month, as the case may be, which sheets can be seen by any member of the A. M. A., but these matters do not belong to the public. It may be well to explain again that those employés who are paid by the month are termed *salaried* officers, and are the ones meant when salaries are spoken of, while the pay-roll includes all who are paid by the week or day. The report mentions salaries and pay-roll, hence this explanation.

Hoping that this report of the financial affairs of the Association will meet your approval, we leave it in your hands.

WM. H. WELCH, MILES F. PORTER,
A. L. WRIGHT, E. E. MONTGOMERY,
H. L. E. JOHNSON, M. L. HARRIS, Secretary.
PHILIP MARVEL, T. J. HAPPEL, Chairman.
W. W. GRANT,

Report of the Committee on Medical Legislation.

To the House of Delegates of the American Medical Association:

Gentlemen:—The report of the work of the Committee on Medical Legislation for the past year is herewith submitted.

The work of the committee naturally divides itself under three heads: 1. National Legislation. 2. State Legislation. 3. Work Carried on by the Bureau of Medical Legislation under the supervision of the Committee.

NATIONAL LEGISLATION.

During the session of the Sixtieth Congress, the following measures of interest to the medical profession have been under consideration: (1) A bill for the reorganization of the army medical department. This bill was practically the same as the one first introduced into the Fifty-eighth Congress and later into the Fifty-ninth. In each of the previous years the bill passed the senate and was reported favorably by the committee in the house but failed to receive consideration. In December, 1907, this bill was again introduced into the senate by Senator Warren and into the house by Mr. Hull. It was endorsed by the Conference on Medical Legislation held in Chicago in December and the action thereon was communicated to the members of the committees on military affairs of both senate and house. The committee also cooperated in every possible way with the Medical Department of the United States Army. It is a pleasure to report that this bill finally became a law on April 23, 1908. As it has been discussed at length in THE JOURNAL and the *Bulletin of the American Medical Association* as well as in the daily press, it is not necessary to go into the details of its provisions. It is a decided advance inasmuch as it provides an adequate medical staff for the Army, abolishes the contract surgeon system and provides for expansion of the medical department in time of war.

NAVAL MEDICAL REORGANIZATION BILLS.

Three bills relating to the Medical Department of the United States Navy were introduced into Congress. These were: (1) A bill reorganizing and increasing the efficiency of the hospital corps of the United States Navy; (2) a bill authorizing the appointment of dental surgeons in the United States Navy; (3) a bill authorizing the establishment and organization of a corps of trained women nurses. These three bills were endorsed by the Conference on Medical Legislation and the committees on naval affairs of the two houses were so notified. For various reasons the consideration of these bills has not been pressed and none of them will probably become a law at this session.

CARROLL-LAZEAR PENSION BILLS.

Bills increasing the pensions of the widows of Dr. James Carroll and Dr. Jesse W. Lazear were introduced into the senate by Senators Dick of Ohio and Knox of Pennsylvania, later consolidated into one bill and passed by the senate. The bill is now in the hands of the committee on pensions of the House of Representatives. This bill was endorsed by the Conference on Medical Legislation and active work for its passage has been carried on by the conference committee on special national legislation. The Merchants' Association of New York, the Board of Trade of New Orleans and the Merchants' Association of San Francisco have also been interested in the matter.

SECTARIAN BILLS BEFORE CONGRESS.

While no amendment to the medical practice act of the District of Columbia has been under consideration, two separate bills, one providing for the appointment of a board of osteopathic examiners and one providing for a board to examine and license "chiropractics" were introduced into the House of Representatives. Neither of these bills has been reported on by the committee and there is little probability of their becoming laws.

IMPORTANCE OF STATE LEGISLATION.

As emphasized in the report of the committee last year, the question of uniform and adequate state legislation on subjects pertaining to the practice of medicine and preservation of public health has become each year more important. As pointed out in the report of this committee in 1906, the action of the Legislative Council and of the committee so far as national legislation is concerned, should be restricted to measures of paramount importance. "Minor and special measures ought to be considered in conference and, when meritorious, formally endorsed and thereafter left to the labors of their respective champions. Only measures of a strictly national character dealing in a very important way with fundamental questions ought in the future to be referred to our large auxiliary committee." The policy of the committee, therefore, should be only to employ the legislative machinery at its command so far as Congress is concerned, in the case of questions of national importance and of vital interest to the public and the profession.

Most of the questions of importance to the public and the profession from a medical and sanitary standpoint come under the jurisdiction of the state and not of the general government. While originally established as a Committee on National Legislation, the scope and work of this committee has broadened, until its function as an adviser and coadjutor of state medical associations is quite as important as its national functions. As stated in the report of the committee for 1907, "with the increased necessity for the formulation of certain standard laws must come an increasing necessity for securing their uniform adoption by the different states, and this in turn must call for a more or less uniform and harmonious organization with which to carry the plan into effect." This feature of the work of the committee occupied much of the time and attention of the Conference on Medical Legislation, to which reference will be made hereafter. With the organization and establisment of a Bureau of Medical Legislation at the Association headquarters several lines of work become possible that were not previously feasible. Since most of the questions involved come under the police power of the state

and since in the regulation of such questions the state is sovereign, the work of the committee in furthering uniform state legislation must necessarily be in the direction of cooperation with the various state associations and the state legislative committees appointed by them. Outlining uniform policies regarding the various questions involved; drafting and perfecting model laws for the use of state associations; accumulating, tabulating and distributing necessary information regarding legislation in the various states, as well as in foreign countries, and constantly aiding the various state associations by advice and cooperation, should be the policy of this committee rather than that of attempting directly to influence state legislation. The actual work of securing the adoption of desired laws should devolve on the state association and its legislative committee. In accordance with this plan, the committee has been working along three different lines, viz:—(1) The accumulation of data regarding medical practice acts; (2) the formulation of a model bill regulating vital statistics; (3) the collection of material regarding pure food and drug acts.

The question of uniform laws for the different states regulating the practice of medicine therein has long been recognized as one of vital importance both to the profession and the public. Whatever reasons may have existed in previous years for diversity in different states, there seems to be no reason at present why state legislation on this subject should not be uniform, at least so far as essentials are concerned. While each state and territory has a medical practice act, comparison shows that they differ greatly, not only in their provisions, but in some cases in the fundamental principles on which they are based. Hardly a session of any legislature passes that some effort is not made to amend or alter the medical practice act. We have, consequently, not only lack of uniformity, but lack of permanency as distinguishing characteristics of the legal enactments by which the practice of medicine is regulated. This subject should be accorded the same careful, exhaustive study that would be demanded by the medical profession on a scientific or technical question of equal importance. Such a general study of the question has never heretofore been attempted. Efforts along this line are now being made by the committee in the following directions: (1) Comparison and analysis of the existing medical practice acts. A preliminary study on this subject, compiled by the secretary of the committee, was published in the *Bulletin*, Nov. 15, 1907. The existing medical practice acts were analyzed and compared under fourteen different heads and a general summary of them instituted. (2) Compilation of a history of medical legislation. Work along this line is now being done, looking toward a careful examination of all previously existing laws in each of the states and with some investigation of their method of operation. It is hoped that this work may soon be completed and published. (3) Compilation and comparison of the medical practice acts of foreign countries. (4) Most important of all is a compilation, collation and careful comparison of the decisions of all the courts of final jurisdiction, both state and federal, so far as they relate to the constitutionality, interpretation and enforcement of medical practice acts. It is obviously useless to attempt to draft a satisfactory law for adoption by the different states without first knowing what the decisions of our courts have been on previous laws and what rulings and interpretations will be sustained by the courts in the future. This task, naturally one of considerable magnitude, has been inaugurated under the direction of the Committee and will be pushed to completion as rapidly as compatible with accuracy. Pending the completion of this investigation and the preparation of a model bill, it is recommended that only absolutely necessary changes in state practice acts be undertaken. When these various lines of work have been completed, when we know what laws have been already enacted, what their history has been, what the courts have decided regarding them and what previous interpretations will be sustained by the courts, a law can then be framed which can be adopted by all the different state legislatures, so far as possible, and which when once adopted, may give a reasonable assurance of permanency. This method of solution of this question has been repeatedly advanced and advocated at different meetings of the American Medical Association, but owing to lack of facilities for carrying on the investigation, as well as lack of time on the part of those interested, it has not been possible to accomplish anything definite. Pending the completion of this work only those changes in existing laws which are imperatively needed should be attempted.

VITAL STATISTICS.

At the Conference on Medical Legislation held in Chicago, the Committee on Uniform State Laws for the regulation of vital statistics presented, as a part of its report, a bill adapted to the needs of those states as yet without satisfactory regulation on this subject. This bill was endorsed by the conference and by the committee. Following the conference, correspondence was taken up with Dr. Cressy L. Wilbur, chief of the Bureau of Vital Statistics of the Census Department; with Dr. Charles V. Chapin, chairman of the committee on legislation of the Section on Vital Statistics of the American Public Health Association, with Mr. Walter Clephane of the Conference on Uniform State Laws of the American Bar Association, as well as with the secretary of the American Statistical Association. Several modifications suggested by these gentlemen were incorporated in the bill and a draft was agreed on, satisfactory to all concerned. This bill was then printed and copies sent to the members of all state boards of health as well as to the registrars of vital statistics of all the large cities. The subject was submitted to the secretary of the Section on Hygiene and Sanitary Science of this Association, who arranged for a symposium on the subject to be held at the Wednesday morning session. Further modifications of the bill will doubtless be made in accordance with suggestions from various sources, but the principal features of the bill will undoubtedly be retained. By the time the various state legislatures assemble in the fall, it is hoped to have a vital statistics bill ready for submission which will have the endorsement of practically all of the authorities on this subject as well as of all recognized organizations interested in this matter. A copy of the bill as it stands at present is herewith attached to this report. In order that the committee may have the support of the House of Delegates we ask for a formal endorsement of this bill as a model for state legislation on this subject.

PURE FOOD AND DRUGS.

Owing to the variations in state constitutions and statutes, the task of formulating a model pure food and drugs bill capable of adoption by all of the states has practically been impossible. It has seemed best to the committee to endorse those bills which were the most praiseworthy, leaving it to the committee on legislation in each state to formulate a bill which would conform to the peculiar conditions existing in each state. Accordingly, the pure foods laws of Kentucky and Tennessee, two of the best state laws as yet adopted, have been issued in the form of pamphlets for distribution. These laws, together with the national Food and Drugs Act and the Iowa law, comprise the best examples of pure food legislation and can safely be used as a guide by those state associations or committees desiring to formulate or endorse such legislation.

THE BUREAU OF MEDICAL LEGISLATION.

As stated in the report of the committee for 1907, the establishment of a bureau at the Association headquarters has greatly increased the efficiency of the organization. Not only the mechanical department of the Association, but also the records, indices, files and clerical force of the Association are at its disposal. The coming winter, when a large number of state legislatures will be in session, will afford an excellent opportunity for testing and enlarging the work of the bureau.

COOPERATION WITH STATE LEGISLATIVE COMMITTEES.

During the past year the legislature has been in session in fifteen states. Through the Bureau of Medical Legislation the committee has endeavored to cooperate with the legislative committees of the various states and to afford them every possible assistance in securing the passage of good laws and the defeating of pernicious ones. The results have been most gratifying and encouraging. With the exception of the New York optometry law, which is now in the hands of the governor, not a single objectionable bill has been passed. On the other hand, the medical practice act of Kansas has been strengthened by the adoption of an amendment defining the practice of medicine, the legislature of Kentucky has passed one of the best pure food laws yet enacted by any state; a new board of health law was adopted in New Jersey; an important amendment to the medical practice act was passed in South Carolina while in Ohio a record for a successful legislative campaign was established by the passage of a pure food and drug bill, a bill providing for county tuberculosis hospitals, a vital statistic bill and a number of others. Bills intended to hamper animal experimentation were defeated in New York and New Jersey. An excellent law establishing a Board of Health has been passed in Virginia. During the coming winter a large number of legislatures will be in session. Plans are being made to insure effective cooperation between state legislative committees and this committee.

CONFERENCE ON MEDICAL LEGISLATION.

The Annual Conference of the Committee on Medical Legislation and of the National Legislative Council was held at the

Auditorium Hotel, Chicago, December 10, 11 and 12, 1907. Reports were made either by letter or in person from the representatives of twenty of the state associations. The first day was devoted to the reading of reports and to the discussion and endorsement of bills pensioning the widows of Drs. Carroll and Lazear and bills providing for naval medical reorganization. The second day was devoted to a discussion of the Army Medical Reorganization Bill, of federal and state regulation of public health and of uniform medical legislation, and the third day to uniform legislation on vital statistics, foods and drugs. The resolution on the control of rabies, submitted by Dr. R. C. Cabot, of Massachusetts, to the House of Delegates at the Atlantic City session and referred to the Committee on Medical Legislation, was discussed by the Conference and resolutions were adopted favoring the increase of the scope and power of the United States Public Health and Marine-Hospital Service, in order that the question of rabies and similar questions affecting the public health might be taken up by this service. These conferences are productive of great benefit and should be more largely attended by members of the National Council. Inasmuch as many of the questions relating to medical legislation are closely allied to those relating to medical education, it is suggested that the conference of these two bodies be held hereafter on succeeding days, in order that a larger number may be present at each.

ORGANIZATION.

The organization under the control of this committee at present consists of the committee itself, composed of three members elected by the House of Delegates; of a National Council, composed of one member from each constituent state association; and of a National Auxiliary Committee, consisting of one member from each county. Most of the state associations now have state committees on medical legislation. We recommend that those which have not should consider the advisability of providing for them. State associations have or should have auxiliary legislative committees, consisting of one member from each county society in the state. It is evident that much greater efficiency could be secured and needless duplication of machinery avoided by uniting the offices of member of the National Council and chairman of the state committee on legislation and public policy. This could be most easily accomplished by requesting the president of the state association to appoint the chairman of the state legislative committee as the member of the National Legislative Council. Such an arrangement would bring the legislative organization of the Association and of the various constituent state associations into closer cooperation. It is equally obvious that a gain would be effected by combining the National Auxiliary Committee for each state with the auxiliary legislative committee of the state association, since it is entirely unnecessary to have two men in the same county doing the same work. We therefore ask that the House of Delegates recommend to the various state associations that a state committee on legislation and public policy be established, if this has not already been done, and that the chairman of such committee be appointed by the president as the member of the National Council on Legislation for that state; that the House of Delegates further recommend that each association provide for an auxiliary legislative committee, consisting of one member from each county society, this member also to be appointed the member of the National Auxiliary Legislative Committee for that county.

It is further recommended that Section 5, Chapter X, Book III. page 20, of the By-laws be amended by substituting the title "National Auxiliary Legislative Committee," in place of "National Auxiliary Congressional Committee" as at present. Owing to the enlarged functions of the Committee on Medical Legislation the work of the Auxiliary Committee will hereafter relate as much to state as to congressional legislation.

In conclusion, the committee expresses the hope that it may in the near future, through careful investigation and discussion of the difficult problems involved, make some very definite progress toward realizing some of those purposes of the Association which have been desired for many years past.

Respectfully submitted,

C. S. BACON,
J. B. ROBERTS,
CHARLES A. L. REED, Chairman.
FREDERICK R. GREEN, Secretary.

Report of Council on Medical Education.

The report of the Council on Medical Education is not printed here because it corresponds in contents so nearly with the addresses which the chairman and secretary of the Council made before the annual Conference on Medical Education, published in THE JOURNAL, May 9, pages 1543 to 1546, and May 16, pages 1637 to 1647.

Report of the Board of Public Instruction.

To the House of Delegates, American Medical Association:

Gentlemen:—The newly constituted Board of Public Instruction realizes that the first work of organization must be most carefully considered and inaugurated slowly, so that the proposed scheme of education may progress along safe and efficient lines. Since the appropriation was granted in February by the Board of Trustees for this work, the Board of Instruction has devoted much of its time to the elaboration of a provisional scheme which, as yet, is only suggestive in character, and may be subject to curtailment in some parts and extension in others.

CHARACTER OF ARTICLES.

After a consideration of this question it has been decided that the first articles to appear shall be along the line of preliminary education. As the public to-day has no conception of the general principles underlying infection, it should be instructed first on the history and various epochs leading up to the present knowledge of infectious diseases. In order that these articles shall gain prompt recognition, it is deemed wise to select most carefully the various topics and the writers best fitted to present them. To avoid the slightest imputation of promoting the interests of any individual in the practice of medicine, the first writers will be chosen from the ranks of scientific workers who are in no way connected with the practical side of surgery or medicine. It is the opinion of the board that gynecologic subjects and matters pertaining to sexual questions can best be taken up through circular letters to physicians, or by carefully prepared monographs by some first-class authority in the medical profession. Such monographs would be of the greatest value and could be judiciously employed for educational purposes by the medical profession in their association with their patients. For the present, therefore, the board deems it advisable not to attempt to exploit any of these subjects in the lay press. No matter that is open to controversy in the medical profession shall appear in the public press, for only those facts concerning which there is general accord should be presented.

For fear that the imputation of advertising may be brought against the writers, there should be no allusion to details of treatment. Articles on the general principles underlying the treatment of disease, however, may be very valuable and should be considered. For example, the consideration of the modern conception of serum therapy would be the basis for a splendid series of articles, whereas to go into the details of treatment with a given serum would be very ill-advised; for in matters of this nature the patient must consult a physician.

SHALL ARTICLES BE SIGNED?

While the report, as adopted last year by the House of Delegates, provided that all articles should appear as authorized publications by the Board of Instruction, but not signed by the writer, there is yet some question as to whether this is the most advisable course to pursue. Several leading editors and educators have been interviewed, and almost without exception are of the opinion that articles signed by the writer and stamped with the official authorization of the Board of Public Instruction will carry greater weight than if they are issued as products of the Board of Public Instruction. Even though this course may break away from medical traditions, it is a question if the time is not propitious for such a departure. On this point we trust there will be a full discussion, and that the House of Delegates will indicate its preference for one or the other policy.

THE FUNCTION OF A SALARIED SECRETARY.

Although the appropriation for the inauguration of this work was granted in February, a secretary was not appointed until April 1. As the work of this board must involve many details and all literary matters must be duly criticised, the secretary must possess special adaptability. His function will be to deal with authors and publishers, to revise manuscript so that it will present an attractive and popular style, and to elaborate in detail the suggestions of the board. At first this work must necessarily be limited, for in such a movement as this a false step at the beginning may lead to endless difficulties. Your board, therefore, desires that the preliminary details shall be considered carefully before their inauguration, and that they shall be essentially basic, for the outlines must

be defined, not so much for the immediate present, as for their wider compass in coming years.

Your board has appointed as secretary Dr. R. Max Goepp, who has had a very wide preliminary education before studying medicine and is especially fitted, on account of his editorial experience, for this position.

LECTURE SYSTEM.

The board believes that two lecture systems are advisable, one under the direct authority of the American Medical Association, which shall be national in character, and a local course of lectures under the auspices of county societies. The value of this work can not be lightly estimated, for there is no more comprehensive way of reaching the public than through the influence of a brilliant speaker. The educational value of this method is splendidly illustrated by the effective work done by the official lecturer of this organization, Dr. McCormack.

For cities and towns local committees under the direct supervicion of county societies should be appointed to arrange courses of lectures on popular subjects. These courses should conform to the general plan as laid down by the Board of Public Instruction.

STATE BOARDS OF PUBLIC INSTRUCTION.

The board advises the establishment by the various state societies of state boards of public instruction, as subsidiary boards, whose function shall be to take up subjects especially adapted to their given territory. All these boards shall be correlated to the national Board of Public Instruction, so that the work may be carried out harmoniously and without unnecessary duplication. In an advisory capacity these state boards may be of the greatest value to the national board.

It is evident that the scope of this work rapidly widens as it is considered, and that it can not be satisfactorily prosecuted without a liberal endowment. We trust that all who take special interest in this subject will use their influence to secure an endowment for this national board.

PRELIMINARY NOTICE OF FORTHCOMING ARTICLES IN POPULAR PERIODICALS.

Many busy physicians are so closely occupied with their daily routine work that it is practically impossible for them to keep in touch with the circulating literature of the day. Therefore, it is deemed advisable to send out through THE JOURNAL of the American Medical Association, or through a separate leaflet accompanying THE JOURNAL, a brief epitome of articles and the periodicals in which they are to be published before they appear. In this way physicians may obtain advance information as to the character of these articles. While the board looks on its work as directed to the education of the public, it believes that the necessity of keeping abreast of lay literature pertaining to medicine will stimulate the physician to closer reading and possibly to the acquirement of more accurate information in his own sphere.

With this general suggestion the board begs to submit the following outline for public instruction. As stated in the opening paragraph of this report, it is but suggestive and must necessarily be closely revised in many particulars before it is finally carried into effect. Suggestions from members of the American Medical Association are solicited and, when feasible, will be incorporated with the general educational scheme. With the necessarily limited means at our command wide expansion is not possible. However, we believe that as the necessity of this educational work becomes more and more evident, an endowment may be provided for its further prosecution.

PROVISIONAL PROGRAM.

There are to be four principal divisions, to which may be added a fifth, devoted to the history of medicine; or the historical articles may be worked in under other headings.

The principal divisions are:

A. MEDICINE: Bacteriology. The Specific Infections. The Intoxications. The Constitutional Diseases. Diseases Due to Animal Parasites. The Digestive System. The Respiratory System. The Heart. The Diseases of the Kidneys.

B. NERVOUS DISEASES: Anatomy and Physiology of the Nervous System. Functional Nervous Diseases. Organic Nervous Diseases.

C. SURGERY: History of Surgery from Ancient Times to Present Day, Etc. Abdominal Surgery. Surgery of the Bones. Orthopedics. Nerve Suturing and Plastic Surgery. Army Surgery.

D. HYGIENE: School Hygiene. Domestic Hygiene. Personal Hygiene. Water. Garbage and Sewage. Quarantine.

E. HISTORY OF MEDICINE.

A. MEDICINE.

I. BACTERIOLOGY.

General Information.—The nature of vegetable parasites, their life history and function in the universe. Distinction between harmless and necessary bacteria on the one hand, and harmful, disease-producing micro-organisms on the other. Function of bacteria in digestion, in the disposal of sewage; conversion of nitrates into nitrites, and further decomposition into nitrogen and water.

Terminology.—Etymology of the terms bacterium, bacillus, micro-organism, microbe, etc. The malarial plasmodium of Laveran, although not a vegetable parasite, should be described in this connection. (Other animal parasites—intestinal worms, trichinæ, echinococci, blood parasites, etc.—to be taken up under "5. Animal Parasites.")

Technic.—Methods of studying bacteria by means of cultures and with the microscope. What is a culture? Description and history of the microscope. Animal inoculation indispensable in bacteriology. Koch's laws. What animal inoculation has accomplished in the discovery of new methods of treatment. Antitoxin in diphtheria and lockjaw (tetanus). Difference between animal inoculation in bacteriology and physiologic experimentation on animals. Theories of immunity and serum treatment of disease.

(In these articles the individual bacteria are to be mentioned only in an illustrative or historical way. Special bacteria to be described in connection with diseases which they produce. The above should make about three articles.

II. THE SPECIFIC INFECTIONS.

What is an "infection"? Historical review of the different theories prevalent during the different periods of medicine with regard to the nature and causes of disease in general, the humoral theory, etc. Discovery of the anthrax bacillus and Koch's discovery of the bacillus of tuberculosis in 1880. Growth of the germ theory of disease. Difference between "infectious" and "contagious." Modes of infection, with examples: inhalation in tuberculosis, alimentary in typhoid fever, direct contact in diphtheria and the contagious diseases, blood in lockjaw (tetanus). List of contagious diseases and of infectious diseases, including those in which the causative micro-organisms still await discovery. Rheumatism as an acute infectious disease.

(The above should supply material for several articles. Then would follow articles on the individual infectious diseases—typhoid fever, pneumonia, tuberculosis, diphtheria, tonsillitis, etc.):

(*a*) *Typhoid Fever.*

1. History of the Disease.—Confusion with typhus fever and differentiation by Louis and his disciples. Biographical sketch of Louis Gerhard and his work. The disappearance of typhus fever under improved sanitation and its reappearance under unfavorable conditions, as during the Spanish-American War.

(NOTE.—Whenever possible English names are to be preferred to the Latin or Greek names of diseases, as "St. Anthony's fire" for "erysipelas;" "green sickness" for "chlorosis," etc. Biographical notices of distinguished men to be inserted freely.)

2. Causation.—The typhoid bacillus, its life history, etc. The arguments showing that typhoid fever is caused by impure drinking water, especially water polluted by sewage, are based on observations of facts—not on theoretical considerations—and on statistics which show the significance of the water supply in the production of the disease. The Plymouth (Pa.) epidemic. Disappearance of the disease in Berlin and other German cities after the water supply had been improved. Other sources—oysters, uncooked vegetables, milk.

3. Statistics.—A statistical article giving the geographical distribution, the relative incidence and mortality of the different large cities (with special attention to the statistics of the locality where the article appears). Army statistics in different countries and in different wars—Spanish-American War, Russo-Japanese War, etc. (This article would necessitate a good deal of work, but might be acceptable to a periodical like the *Outlook* or the *Independent*.)

4. Medical and Pathologic.—This article would deal with the pathology, danger of complications, the Widal test—in short, the medical aspect of the disease.

The following infections to be treated in the same manner:

(*b*) *Pneumonia.*

History, etiology, bacteriology, pathology. Prophylaxis. Institutional epidemics. Relation to tuberculosis. Effect of age on course and prognosis. Pneumonia, alcoholism and surgical injury. Complications: Pleurisy, empyema, lung abscess (?).

(c) *Pulmonary Tuberculosis.*

Hereditary theories. Etiology and bacteriology; pathology; methods of infection (inhalation and alimentary). Statistics of incidence and mortality. Sanatoria. Duties of state and municipal governments. The Tuberculosis Congress in Washington to be held this year. The prognosis of tuberculosis. The new tests—conjunctival, cutaneous, inunction (?).

Tuberculosis of bones. Tuberculosis of the lymphatic system. Scrofula. The subject of adenoids might be treated in this connection.

Other diseases to be treated similarly are:

Typhus fever (see under typhoid fever).
Relapsing fever (for a sectional article).
Dengue, dandy fever, break-bone fever (sectional).
Malaria.
Yellow fever.
Malta fever (sectional).
Acute articular rheumatism.
Tonsilitis.
Infections of the mouth-noma.
Epidemic cerebrospinal meningitis.
Diphtheria.
Smallpox.
Chickenpox.
Scarlet fever.
Measles and German measles.
Mumps.
St. Anthony's fire (erysipelas).
Contagious Skin Diseases:
Ringworm.
Favus.
Impetigo.
Scabies (itch).
Lockjaw (tetanus).
Hydrophobia (rabies).
Glanders.
Woolsorters' disease (actinomycosis).
Puerperal sepsis.
Blood poisoning (pyemia and septicemia).

III. THE INTOXICATIONS.

Alcoholism and delirium tremens. The morphin habit. Food poisoning. Sunstroke and heat fever (Osler's classification).

IV. THE CONSTITUTIONAL DISEASES.

(Chronic) Rheumatism. Gout. Diabetes. Obesity. Rickets. Diseases of the blood: Simple anemia, green sickness (chlorosis), pernicious anemia. Simple goiter, exophthalmic goiter, myxedema and cretinism.

V. DISEASES DUE TO ANIMAL PARASITES.

Intestinal worms. Trichiniasis. Filariasis. Tropical medicine.

VI. THE DIGESTIVE SYSTEM.

Physiology of digestion. Classes of foods and their comparative value. Digestibility of foods. Effect of cooking. Constipation and diarrhea. Functional and organic diseases of the stomach. The neuroses. "Gastritis." Ulcer of the stomach. Cancer of the stomach. Intestinal indigestion. Enteritis in children. Cholera morbus. Gastroptosis and enteroptosis. Appendicitis. Pancreatitis (?). Peritonitis. Diseases of the liver: Gallstones, cancer, cirrhosis, abscess (?).

VII. THE RESPIRATORY SYSTEM.

Cold in the head (coryza). Nasal catarrh. Hay fever. Laryngitis. Spasmodic croup (laryngitis stridulus). Bronchitis.

VIII. THE HEART AND CIRCULATORY SYSTEM.

Anatomy and physiology of the heart. The greater and lesser circulation (Harvey). Blood pressure (popularized through life insurance companies). Heart strain (acute dilatation). Athlete's heart. Organic (valvular) heart disease and nervous affections of the heart (cardiac neuroses). Prognosis of heart disease. Prevention. General régime for persons with heart disease (amount of work and exercise, and kind of exercise permissible; relation to school work and athletics). Coffee and tobacco. Arteriosclerosis and alcohol.

IX. DISEASES OF THE KIDNEYS.

History. Richard Bright. Causes of chronic Bright's disease. Prevention. Acute Bright's disease after exposure; after scarlet fever. Uremia. Stone. Use of the *x*-rays in locating stones in the kidney.

B. NERVOUS DISEASES.

I. ANATOMY AND PHYSIOLOGY OF THE NERVOUS SYSTEM.

II. FUNCTIONAL NERVOUS DISEASES.

General article on the causes of functional nervous diseases; overwork, etc. Neurasthenia: special emphasis to be laid on causes and prevention, avoiding the symptomatology as much as possible (in order to avoid suggesting the disease to susceptible readers). Hysteria (to be treated in the same way as neurasthenia). St. Vitus' dance (chorea). Epilepsy and alcoholism (?). Occupation neuroses (?). Madness (insanity); acute mania, paranoia, melancholia. Criminal responsibility. Public and private institutions for the insane. Feeble-minded children. Stammering and other defects of speech.

III. ORGANIC NERVOUS DISEASE.

Diseases of the blood vessels: Apoplexy (hemorrhage and embolism). Hemiplegia. Aphasia, etc. Disease of the peripheral nerves: Sciatica. Neuritis. Multiple neuritis. Lead palsy.

(The whole subject of organic nervous diseases to be handled very cautiously.)

C. SURGERY.

I. HISTORY OF SURGERY.

Story of Surgery. History from ancient times to the present day. Present state of the art among uncivilized nations. Modern surgery: Anesthesia (Morton and Long.) Lister and asepsis. Progress during the past thirty years.

II. ABDOMINAL SURGERY.

Abdominal tumors. Appendicitis. Surgery of the stomach and intestines. Surgery of the liver. Pancreatitis.

III. BONE SURGERY.

Value of the Roentgen rays in surgery. Historical sketch of Roentgen and his discovery.

IV. PLASTIC SURGERY.

Plastic surgery of the face. Correction of nasal deformities. ("Facial blemish" swindlers.) Nerve suturing.

V. BRAIN SURGERY.

Localization of brain lesions. What animal exploration has done in this field.

VI. ARMY SURGERY.

A splendid series of articles bearing on the Napoleonic, Civil, Spanish-American and Russo-Japanese wars. In no way can the progress of the science be better marked than in this series.

D. HYGIENE.

I. SCHOOL HYGIENE.

A technical article covering such points as buildings and equipment; ventilation and lighting; placing of desks and blackboards with reference to light; suitable models of desks, etc.; air space and floor space.

(This article might be written by an architect). A more strictly medical article dealing with municipal inspection of schools; contagious diseases. Defective eyesight; defects of speech, adenoids, want of concentration (aprosexia). The question of how to deal with backward children not so defective as to be classed as feeble-minded.

A pedagogical article on child psychology. The age when school training should begin. Methods of teaching; relation of development of special senses to oral and written work. Length of sessions and intermissions. Manual training, Sloyd, etc.

II. DOMESTIC HYGIENE.

Ventilation. Heating. Plumbing. Drinking water: filtering and boiling. Flies and mosquitoes: screening windows, cisterns and water barrels. Hygiene of the sickroom. Nursing.

III. PERSONAL HYGIENE.

Bathing. Clothing; suitable kinds of underwear. Mode of life at different ages. Personal habits: alcohol, tobacco, tea and coffee, etc. Diet: varieties of food and food values from the standpoint of economy. Components of a perfect diet. The most important articles of food taken up separately: milk, eggs, meat, green vegetables, fruit, cereals. The Food and Drugs Act, its scope, and what it has accomplished. Diet of children, old persons, and invalids. Diet during pregnancy and lactation (?). Infant feeding (in this article such subjects as cleanliness in the care of milk and nursing bottles, regularity, quantity adapted to infants at different ages, the dangers of attempting to select a food without medical advice, would be treated, without going into the question of milk mixtures or any other medical question. Such articles are constantly needed to impart some rational ideas of how to care for the baby to the average mother.)

IV. WATER.

Municipal water supplies. Methods of filtration when the municipal supply is not filtered. (A technical article on this subject would be desirable.)

The water supply in its relation to disease, especially typhoid fever. Stagnant water, mosquitoes, and malaria. Protection of cisterns, and water barrels against mosquitoes.

V. GARBAGE AND SEWAGE.

Municipal disposal of garbage and sewage. Collection and disposal of ashes and waste. "Municipal housekeeping." Civic associations. Disposal of sewage in small towns, country places, detached houses.

VI. QUARANTINE.

Epidemics: Smallpox, cerebro-spinal meningitis, yellow fever, cholera Asiatica, bubonic plague, etc.

E. HISTORY OF MEDICINE.

This division to consist of separate articles dealing with the most interesting periods of medicine: Hippocrates. Galen. Medicine in Biblical times. Harvey and the discovery of the circulation. Jenner and vaccination. Medicine among uncivilized nations. The doctor in literature: Shakespeare, Molière, Charles Reade.

Respectfully submitted.

F. F. SIMPSON.
FRANK BILLINGS.
CHARLES HARRINGTON.
L. S. MCMURTRY.
HOWARD A. KELLY.
L. EMMETT HOLT.
JOHN G. CLARK, Chairman.
R. MAX GOEPP, Secretary.

Report of the Committee on Ophthalmia Neonatorum.

To the House of Delegates, American Medical Association:

Gentlemen:—In the report presented to the House of Delegates by your committee one year ago it was shown that the amount of blindness dependent on the neglect of proper prophylactic care, or right treatment of ophthalmia neonatorum, had not decreased in a degree proportionate to the advance which had been made on other lines in general sanitation. Emphasis was placed on the fact that the amount of blindness, while smaller in many communities, was still so great in the aggregate as to have attracted the attention of the general government and that recommendations had been made in the Census for the Deaf and Blind for the year 1900 urging that more general attention should be given to measures for its prevention. It was at once evident, therefore, that if this pestilence were to be attacked in accordance with the methods of modern sanitary science exact statistical data concerning the incidence, the localities chiefly affected and the results both in blind and disabled eyes must be first secured. In endeavoring to place this subject on such an exact basis it was found that except from the large hospitals no exact data were obtainable, that there are no records to show how prevalent infections from this cause are throughout the country, and they can be only approximately estimated by the number of blind children. These are recorded in such census reports as have been taken and in the annual admissions to the schools for the blind. In the census taken by the commission for the blind in the state of New York, in 1906, there were found to be 6,200 persons. Of these 509 were under one year of age, while of the 3,306 blind in Massachusetts more than 20 per cent. had lost their sight before their fifth year. There was no method of determining exactly how many of these were cases of infantile infection, but if ulcerative conditions due to bad hygiene and insufficient nourishment and the various forms of congenital blindness are excluded it is safe to assume, as blindness in young children from other causes than these is comparatively rare, that nearly one-half of the whole number have become blind as a result of ophthalmia neonatorum.

It is the special schools, however, which form the general clearing-house for most of the young blind, and in order that it might be determined what proportion of those admitted as late as the fall of 1907 had lost their sight from this cause a circular letter was addressed to the superintendent of each of the schools, asking for a report of the causes assigned for blindness, where the investigation had been made by an ophthalmologist. The reports received were somewhat startling and singularly uniform in their results. In a very large number of schools no trustworthy examinations were made, but from the large number of instances in which the causes were marked "unknown" and "inflammation in babyhood" there is little doubt that the proportion would run in parallel lines to those schools in which more exact reports are recorded. Among those received were the following:

REPORTS FROM SCHOOLS FOR THE BLIND, 1907.

Schools for the Blind.	No. of new admissions.	No. blind from ophth. neonatorum.	P. cent.
New York State School for the Blind..	13	4	30.7
Penn. Institute for the Blind, Overbrook, Pa.	27	9	33.33
Institute for the Blind, Austin, Texas..	(Not definite—about 10.)		
Perkins Institute and Mass. School for the Blind.	43	13	30.00
Colorado School for the Blind, Colorado Springs.	7	3	42.8
Western Penn. Inst. for Blind, Pittsburg, Pa.	28	8	28.57
(Percentage of total number in school, 31.37.)			
Missouri School for the Blind, St. Louis.	19	6	31.57
State Board of Education for the Blind, Hartford, Conn.	8	1	12.50
(Since creation of Board in 1893, 34.74.)			
State School for the Blind, Columbus, Ohio.	61	6	9.83
(Reduction of usual percentage and as low as at any time in last twelve years.)			
Maryland School for the Blind.....	13	4	30.77
(Percentage of total number in school in 1905, 25.50.)			
Ontario Inst. for Blind, Brantford, Ont.	23	5	21.74
(Percentage of total number in school, 24.7.)			

The average then of the new admissions in the fall of 1907 to the ten schools in which exact records were kept and representing eight states and the province of Ontario was 25.21 per cent., or one-quarter of the whole number, needlessly blind.

That these are not unusual results is shown by the following report from the Pennsylvania School for the Blind for the past eight years.

	Per cent.		Per cent.
1900.....11 out of 25 =	44	1904.....15 out of 56 =	25.00
1901.....10 out of 26 =	35	1905.....21 out of 42 =	50.00
1902..... 9 out of 39 =	23	1906.....12 out of 38 =	31.00
1903.....14 out of 50 =	28	1907..... 9 out of 27 =	33.33

The average percentage of these eight years is 33.36 per cent. of the whole number admitted. As this enormously high proportion of blindness due to ophthalmia neonatorum is found in states maintaining the highest standards of medical education and general sanitation, there is no doubt whatever that when exact statistics can be obtained at least as large a percentage due to this cause will be found elsewhere throughout the country.

Your committee realized, therefore, that if this universal pestilence which is producing such disaster everywhere is to be controlled, the attack must be planned in accordance with the same sanitary thoroughness that would obtain in the event of a more localized endemic infection. That the disease and its consequences exist everywhere makes the problem one differing in magnitude but in no wise in method.

THREE THINGS NECESSARY.

Three things seem to be necessary:

First.—Exact data concerning its incidence and results should be secured in every state.

Second.—As it is a problem vitally affecting the state in making dependents of those who might be productive citizens, its control rests with the state through its department of public health.

Third.—It is important that there be secured united and concurrent action for its control on the part of all of those who know what to do and are willing to aid in stamping out this pestilence.

In order to obtain the first essential your committee addressed a circular letter to the president and secretary of each state medical society, asking that three things be done. In this the president was earnestly requested, first, in his annual address to urge on physicians their duty in actively supporting such measures as may be inaugurated by the health department of the state to wipe out this disease; second, that he appoint a committee having as its chairman one who would assume responsibility for his state in securing effective work through the physicians and in harmony with the health department of that state; and third, that he send the names of the committee as soon as appointed to the chairman of the Committee on Ophthalmia Neonatorum of the American Medical Association. A similar communication was sent to the department of public health in each state in which it was especially urged, as a preliminary step, that inquiries concerning ophthalmia neonatorum be instituted in that state and the summarized conclusions forwarded to this committee. In order that there might be uniformity of plan it was urged that answers be returned to the following inquiries and the summarized conclusions sent to this committee:

Do state or local laws exist in ———— concerning the control or surveillance of midwives or other unlicensed practitioners?
Are birth reports regularly filed by physicians? By midwives?
How many births were reported in the state of ———— in 1906?
In how many of these did ophthalmia neonatorum develop?
In how many of these cases was prophylaxis employed?
What prophylactics were used and in what strength?
What results followed?
Are records regularly kept in the hospitals concerning the development, treatment and results of ophthalmia neonatorum?
If not, will you not require that such records be kept?

The answers to this letter were immediate and gratifying. Within two weeks responses were received from representatives of nearly two-thirds of the states, expressing their hearty approval of the efforts which were being made to control ophthalmia neonatorum and pledging their cooperation so far as it might be possible to give it. In many of them committees were immediately appointed; in some of them, as in Kentucky, this work was already under way, but to obtain the necessary facts in many instances special appropriations would be required, and to take effective action expenses must be incurred. While these would not be large, they could be secured only by the efforts of those of local prominence in the community. The necessity, then, for the third point which was urged in the former report became apparent, viz., concerted and coordinate action on the part of all interested. The way to control this pestilence in all the states is to control it in each of the states. With that idea in view your committee immediately began to organize national forces. There had already been a joint meeting on the subject of the American Ophthalmological Society and American Obstetrical Society at Washington. By invitation the subject was presented at the meeting in Detroit of the American Obstetrical and Gynecological Association; in Louisville at the meeting of the American Academy of Ophthalmology and Oto-Laryngology; at Atlantic City before the American Public Health Association. Among the lay organizations which had considered it were the American Association of Workers for the Blind and the Mothers' Congress recently held in Washington, the latter based on the idea that being a social disorder and one which would properly come under the control of the state authorities through its public health department, it was essential that there should be a wider general knowledge concerning its nature, its cause and its prevention. All these bodies have appointed committees to cooperate in controlling this disease. Letters have been received from the Philippines, the Canal Zone and from Hawaii promising hearty cooperation of the representatives in those territories in the work outlined by the committee.

Dr. Bracken of Minnesota has said: "The health officers in the various states will take any action which they are asked to take by the representative men in their own community and in whom they have confidence."

It becomes imperative, therefore, that men representing the obstetricians and ophthalmologists should join with the health authorities in building up the skeleton organization which has already been formed throughout the country.

SPECIFIC DETAILS REGARDING METHOD OF PROCEDURE.

The matter of specific details as to method is of secondary importance and must be left largely to the judgment of the men in each state. Your committee can only suggest general plans of procedure. It would seem important that certain specific things be carried out in every state and territory throughout the union. The first step of importance is to secure a general registration of births. Accurate and complete vital statistics must form the basis of successful effort on these lines. In all the states these records are defective. In most of them no records are kept whatever. The importance of accurate vital statistics as a prerequisite for any effective work in controlling an endemic infectious disease can hardly be overestimated.

In a most striking address on this subject Cressy L. Wilbur, M.D., chief statistician of the Bureau of Census, Washington, D. C., said at the meeting of the American Public Health Association in 1907: "Vital statistics is the Cinderella of modern public hygiene. She sits in the chimney corner and sifts the ashes of dusty figures while her proud sisters, bacteriology and preventive medicine, go to the ball and talk about the wonderful things they have done. But the Prince's slipper fits no other foot, and when we descend to facts, and not mere empty bombast, about the results of administrative work, vital statistics, and accurate vital statistics, are our sole dependence. The accurate registration of vital statistics is an indispensable requisite of an efficient modern public health service, and the Congress of the United States, by joint resolution, has called on the various states to cooperate in establishing such registration. It is the most important of all sanitary measures and should be unremittingly urged until successfully carried out in every state of the Union."

And, as he goes on to show, in not one single state is this condition achieved. Dr. Wilbur asks whether the births of all Americans shall be registered as are those of human beings in all civilized countries except the United States, and expresses the hope that we may ultimately secure a modern system of registration which will compare favorably with that which the Japanese possess to-day! The registration of the birth is necessary in determining the vital statistics, but it is of no less value in putting the public authorities in touch with the accoucheur, whether doctor or midwife, in keeping accurate records of the births supervised by midwives, who and where these midwives are, and what their character and fitness for their work.

REGISTRATION OF MIDWIVES.

This makes possible the second essential, the registration of midwives. In most of the large cities nearly half the births are attended by these women. In New York City over 40 per cent., and in Chicago, among the Italians, who are most prolific, 86 per cent. of the births are reported by midwives. Many of these are ignorant, untrained and unclean. The blindness of the child is but one of the many disasters that attend their maladministrations. Every midwife should, therefore, be required by law to fit herself for the work which she assumes to do. If the uncleanly can not be made to adopt sanitary methods, they, together with the vicious and immoral, should be put out of business. Every midwife should be licensed and registered. She should be compelled to report every birth and every case of ophthalmia as soon as it develops, as is required by the Howe law, which is now in the statute books of many states. She should be trained as to the best method of conducting the infant's toilet, especially as to the care of the eyes. The license should not be regarded as a diploma, but as a sanitary police measure maintained by the board of public health. In her report of the birth she should be obliged to state whether or not a prophylactic against ophthalmia neonatorum had been employed, which should be required in all except premature births.

If the midwife is to be held responsible for her neglect to use proper prophylactic measures under penalty of losing her license, as she should be, then she should have the prophylactic put in her hands, with the fullest directions for its use. Some plan should be arranged, moreover, by which cases reported by midwives should receive immediate medical treatment. The poor should be placed under the charge of the physicians of the health department, while others should be advised of the danger to the child's eyes that would result from neglect and both should be urged by the health department to immediately secure adequate medical care.

OPHTHALMIA NEONATORUM AS A REPORTABLE DISEASE.

It does not seem practicable to put ophthalmia neonatorum on the list of communicable diseases. Considering the fact that it is so frequently of gonorrheal origin, many physicians feel that to report it, with the name of the parents, would be a breach of professional confidence and it would add, moreover, to the burdens of an already overburdened profession, but for the health officer to take a semiannual canvass of the number of cases occurring in the practice of the physicians, midwives and institutions of the locality, together with a statement of what, if any, prophylactic was used, with the resulting condition of the eyes in each instance, serves the same end and has a double value—namely, serving to impress on each one receiving the card the need of prophylaxis; and in obtaining statistics from which important conclusions may be drawn. It affords an opportunity, moreover, of conveying information to accoucheurs—that often may not, and soon would not, be necessary—but, meanwhile, it would be instrumental in saving eyes that would otherwise be lost.

SOLUTION OF THE PROBLEM.

In its ultimate analysis the solution of the problem would seem to lie not primarily in coercion, but in guidance. Dr. Juan Santos Fernandez, the distinguished Cuban ophthalmologist, touching on this subject, has said: "The important thing is to bring before the public mind, by means of constant propaganda, a knowledge of the danger to a recently born child, who is at all affected as to the eyes, the great harm which a husband affected with gonorrhea, may cause his wife or offspring, and, side by side with these, to call the attention of the family to the facilities which the authorities will furnish them to guard against blindness." "This," he continues, "would be worth much more than penalties, and if there were a physician paid by the state (and in every county in the United States may such a health officer be found) to attend to the poor children affected, or to prevent their becoming affected, and this fact were to become known to the poor, they would surely seek his assistance, and he could fulfill his duties."

In the city of New York it was found that municipal affairs were being conducted inefficiently, extravagantly and in some

instances dishonestly. A great reform is being quietly wrought. It is based on the principle that when right doing is made easier and simpler and more comfortable than wrong doing, that human effort will follow the lines of least resistance. It takes into account, moreover, the weakness of human nature, which we must recognize if we would discount success. It also builds somewhat on the belief that the great majority of men would rather do right than wrong, would choose the better rather than the worse ff either were equally easy. This condition would be attained in making almost automatic the working of every health department in relation to infantile ophthalmic infections.

MANNER IN WHICH THIS END MAY BE ACCOMPLISHED.

As to the manner in which this might be done the conclusions in detail which are proposed may be broadly outlined as follows:

Registration.
- a. Births.
- b. Midwives.
- c. Physicians.

Education.
- a. Midwives.
- b. Mothers.
- c. Medical profession.

Preparedness.
- a. Proper dissemination of prophylactic.

Cooperation.
- a. United and concerted action in carrying these provisions into effect.

First.—It is necessary to secure the enactment of laws in each state or federal territory requiring the registry of births

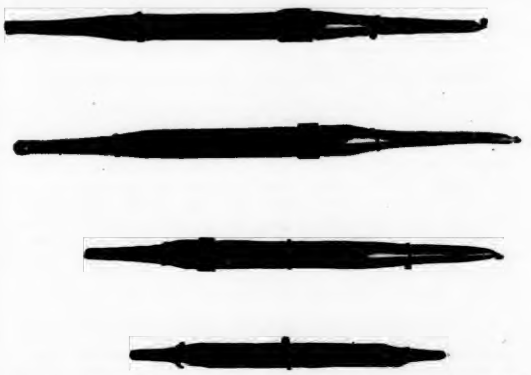

Fig. 1.—Suggested tubes hermetically sealed, made of glass excluding actinic rays. In the smaller tube the upper tip is broken and the wax removed exposing an opening through which the fluid passes to the blunt point and making thereby a Credé rod. The larger tubes are made on the same principle, the small tip is removed and the opening exposed by sliding the rubber. Either can be handled without danger to the child's eyes and permits the flow of a small amount of the prophylactic chosen. (Samples made through the courtesy of Parke, Davis & Company.)

and placing the supervisory control and licensure of midwives in the boards of health, requiring that all midwives be examined and registered in each county and that they be required immediately to report each case of ophthalmia occurring under their ministrations under penalty for neglect if found guilty, of fine, and for a subsequent offense forfeiture of license. In all states the registration of physicians should be maintained with equal thoroughness.

Second.—The distribution by health boards of circulars of advice to midwives and mothers, giving instructions as to the dangers, method of infection and prophylaxis of ophthalmia neonatorum. This has been most effectively carried out by private organizations in England and France. It has also been done to some extent in New York and other cities, but never as a general movement.

Third.—The preparation and distribution by the health boards of ampules or tubes containing the chosen prophylactic, with specific directions for its use. The consensus of opinion on the part of both obstetricians and ophthalmologists is that this should be some solution of silver. The vast majority prefer the 1 per cent. solution of silver nitrate. The special chemical used, however, is merely advisory, each health department should be free to use whatever prophylactic it should deem best. It should, moreover, be provided with outfits for taking cultures from the eyes or suspected secretions on request of those making application for its use.

Fourth.—To insist on the maintenance of proper records in all maternity institutions and other hospitals in which children are born. If reports were filed with the department of health as to the number of infections, the nature of the prophylactic employed and the results as to the corneal integrity not only would the statistics thus obtained be of great value, but the fact that such records were required would cause greater care on the part of the authorities in regard to cases of this character.

Fifth.—Periodic report to boards of health by all physicians engaged in obstetrics of the number of cases of ophthalmia neonatorum that has occurred in their practice within a specified time, whether or not a prophylactic was used—if so, what—together with the result.

Sixth.—Of great importance is it that there may be more widespread knowledge concerning ophthalmia neonatorum and its dangers. Helen Keller voices a very proper public sentiment when she says: "The problem of prevention should be dealt with frankly. Physicians should take pains to disseminate knowledge needful for a clear understanding of the causes of blindness. The time for hinting at unpleasant truths is past. Let us insist that the states put into practice every known and approved method of prevention and that physicians and teachers open wide the doors of knowledge for the people to enter in. The facts are not agreeable reading. Often they are revolting. But it is better that our sensibilities should be shocked than that we should be ignorant of facts on which rest sight, hearing, intelligence, morals, and the life of the children of men. Let us do our best to rend the thick curtain with which society is hiding its eyes from the unpleasant but needful truths."

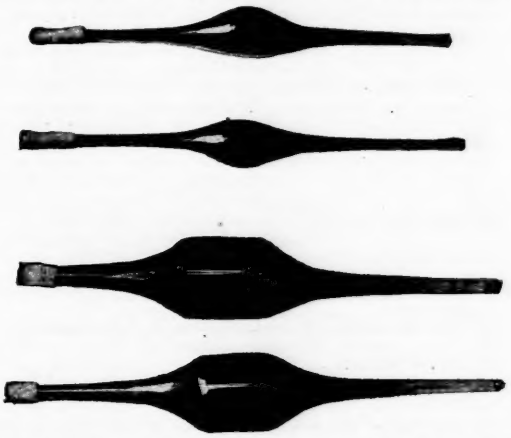

Fig. 2.—Ampules for Free Distribution.—The tip is broken under the rubber which is allowed to remain so that the glasses can not come in contact with the child's eye. (Made through the courtesy of Parke, Davis & Company.)

Seventh.—Most essential is organized and concerted effort throughout all of the states of the Union. The skeleton of such an organization has already been formed and the plan has met with the general approval of the profession in nearly two-thirds of the states. If the chairmen of the Sections on Ophthalmology, on Obstetrics and Diseases of Women, and on Hygiene and Sanitary Science were to select a representative in each state and territory to support and strengthen the movement already under way, a conference of these representatives might be held at this meeting in Chicago and general plans laid down which could be carried out concurrently. As the chairmen of each of these sections has already given his approval of this report, such an organized movement could be started without delay and the inspiration and incentive of united effort would do much to carry it to an effective conclusion.

A CONGRESS FOR THE PREVENTION OF BLINDNESS.

It would seem, however, that the result which we have been struggling so many years to accomplish for the control of this disease throughout the world could be greatly facilitated if when this is done the general organization of forces everywhere could be brought together in a congress devoted to the

prevention of unnecessary blindness. When Mr. Snell, in a communication to the British Medical Association, reported that of 333 inmates of the Sheffield School for the Blind 137, or 43.36 per cent., had been blinded by ophthalmia neonatorum, these startling figures led to the unanimous passage of a resolution proposed by Dr. Stephenson and seconded by Mr. Karl Grossman, that in the opinion of the Section on Ophthalmology the time had come for the British Medical Association to take action toward the prevention of ophthalmia neonatorum. With the organization already begun in the United States and a similar body of men at work on it in Great Britain, and all continental Europe actively engaged in combating this disease, it would seem that an international congress with government and other lay representatives would accomplish more in a single conference than individual effort has been able to accomplish in many years. Such a congress should include for its consideration not only ophthalmia neonatorum, but all forms of preventable blindness, such as trachoma, which has become such a menace that the national government has enacted stringent measures for guarding our seaports against its introduction into this country. It should consider the various traumatisms, including injuries which disable working men during the productive period of their lives by the failure on the part of employers to use suitable protective devices and a study of all such forms of blindness as intelligent effort might limit. It should provide measures for the control of the use of toy pistols, explosives and other means of destroying human eyes; for the protection of the public by warning and otherwise against the dangers of wood alcohol and other toxic substances producing blindness, as well as such other subjects relating to the hygiene and sanitation of the eyes as might be deemed wise. If such a congress were to be held in the city of Washington, D. C., in the year 1910, its possibilities might be outlined at the Ophthalmological Congress to be held in Naples in May, 1909, and a plan of procedure might be adopted which, if carried out throughout the world would do more than any other single movement to lessen the unnecessary blindness of the world. Your committee feels, therefore, that in organizing this work much remains yet to be done. It would ask the support of this body in carrying out the program outlined and request that more time be given in which to carry on the work already begun.

F. PARK LEWIS, Chairman.
J. CLIFTON EDGAR,
F. F. WESBROOK,
Committee.

Approved:
William H. Wilder, Chairman Section on Ophthalmology.
Walter B. Dorsett, Chairman Section on Obstetrics and Diseases of Women.
William C. Gorgas, Chairman Section on Hygiene and Sanitary Science.

STATES AND TERRITORIES FROM WHICH EXPRESSIONS HAVE ALREADY BEEN RECEIVED FAVORING ORGANIZED AND CONCERTED MOVEMENT.

Arizona.....State Medical Society
California.....State Medical Society—Committee
Colorado.State Medical Society and Health Department—Committee
District of Columbia.....Health Department
Florida.....State Medical Society
Illinois.....Health Department and State Medical Society
Indiana.....Health Department
Iowa.....State Medical Society (will appoint committee)
Kentucky.....State Medical Society—Committee
Louisiana.....State Medical Society
Montana.....State Medical Society
Massachusetts.....State Medical Society
Minnesota.....State Medical Society and Health Department
Maine.....State Medical Society—Committee
Missouri.....State Medical Society—Committee
Maryland.....Health Department
Mississippi.....State Medical Society
Michigan.....Health Department
Nevada.....State Medical Society
Nebraska.....State Medical Society
New York.....State Medical Society
North Carolina.....State Medical Society
New Jersey.....State Medical Society
Oregon.....State Medical Society
Ohio.....Health Department
Oklahoma.....State Medical Society
Pennsylvania.....State Medical Society
Rhode Island.....Health Department
Panama.....National Government
(Reports received through Col. W. C. Gorgas, officer in charge, from all of the stations and hospitals in the department.)
Philippine Islands.....Dept. of the Interior—Bureau of Health
Tennessee.....State Medical Society
Vermont.....State Medical Society
Washington.....State Medical Society and Health Department
West Virginia.....State Medical Society
Wisconsin.....State Medical Society
Hawaii.....Territorial Medical Society and Health Department
Wyoming.....State Medical Society
Idaho.....State Medical Society

COMMITTEES ON OPHTHALMIA NEONATORUM.

CALIFORNIA.—Dr. Kaspar Pischel, 1817 California Street, San Francisco; Dr. G. E. Brinckerhoff, 1169 Broadway, Oakland; Dr. Thomas McCoy, Bryson Building, Los Angeles.

COLORADO.—Dr. E. W. Stevens, Chairman, McPhee Building, Denver; Dr. Wm. H. Sharpley, Health Commissioner, Denver; Dr. Hugh Taylor, Secretary of the State Board of Health, Denver.

KENTUCKY.—Dr. S. C. Dabney, Louisville; Dr. J. A. Stucky, Lexington; Dr. L. C. Dunn, Henderson; Dr. T. H. Aud, Middleboro; Dr. Adolph Pfingst, Louisville.

MAINE.—Dr. H. F. Clough, Bangor; Dr. J. F. Hill, Waterville; Dr. F. Y. Gilbert, Portland.

MISSOURI.—Dr. P. I. Leonard, St. Joseph; Dr. R. McLemore, Nevada; Dr. J. H. Thompson, Kansas City.

AMERICAN ACADEMY OF OPHTHALMOLOGISTS AND OTO-LARYNGOLOGISTS.—Dr. A. A. Hubbell, Chairman, Buffalo, N. Y.; Dr. A. R. Baker, Cleveland; Dr. Edward Jackson, Denver.

AMERICAN PUBLIC HEALTH ASSOCIATION.—Dr. F. Park Lewis, Buffalo, N. Y.; Dr. C. A. Harper, Madison, Wis.; Dr. H. D. Pease, Albany, N. Y.

AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.—Dr. R. E. Skeel, Chairman, Cleveland; Dr. Magnus A. Tate, Dr. O. H. Elbrecht.

AMERICAN OPHTHALMOLOGICAL ASSOCIATION.—Dr. Lucien Howe, Chairman, Buffalo, N. Y.; Dr. Edward Jackson, Denver; Dr. P. A. Callan, New York City.

AMERICAN ASSOCIATION OF WORKERS FOR THE BLIND.—Dr. F. Park Lewis, Chairman, Buffalo, N. Y.

NATIONAL CONGRESS OF MOTHERS.—Committee not yet appointed.

RESOLUTIONS PASSED BY COOPERATING ORGANIZATIONS.

American Association of Obstetricians and Gynecologists.

Your committee appointed to consider the question of ophthalmia neonatorum begs to make the following report:

WHEREAS, A committee has been appointed by the American Medical Association on legislative measures to prevent ophthalmia neonatorum; and,

WHEREAS, It is recognized by this Association that this disease is preventable; and,

WHEREAS, The Health Department of each state is the properly constituted authority for dealing with preventable and communicable diseases; therefore, be it

Resolved, That it is the expression of the sentiment of this Association that definite steps should be taken to secure the enactment of such laws in the various states as shall compel the use of proper measures of prophylaxis by the attendant at every confinement, the execution of such laws to be under the jurisdiction of the state boards of health, and we hereby pledge our assistance and cooperation to the committee of the American Medical Association in its undertaking.

Signed: R. E. SKEEL,
O. H. ELBRECHT,
MAGNUS A. TATE,

Report of the Committee of the American Academy of Ophthalmology and Oto-Laryngology appointed to cooperate with the Committee of the American Medical Association on Legislative Measures to Prevent Ophthalmia Neonatorum.

Your committee presents the following for the consideration of this Academy:

It is well known that ophthalmia neonatorum is the cause of a large proportion of blindness in the United States. No fact in medicine, however, has been more thoroughly established than that it is a preventable disease in a vast majority of cases. Granting this, your committee submits that every state should enact laws having for their purpose the adoption of measures for the prevention of its development, at least, in public institutions where obstetric cases are received, and in the practice of midwives. Precedence has long existed in enactments requiring the carrying out of certain methods and treatment to prevent smallpox and other infectious diseases.

The state department of health seems to be the proper authority for establishing the necessary rules, regulations and ordinances and enforcing their observance, and for publishing and distributing appropriate information and instruction on the subject.

This committee, as will be seen by the draft of law hereby suggested, is of the opinion that legislative action on this subject should at present be limited to the obstetric practice in public or semipublic institutions and to the practice of duly licensed midwives, otherwise leaving the use of prophylactic measures to the judgment and discretion of physicians.

This committee further believes that the specific methods to be followed in the prophylaxis of ophthalmia neonatorum should not be stated in any law, but should be left to the intelligence and judgment of the department of health of each state, respectively, presuming that it will act in accordance with the most advanced existing knowledge.

The following form of law is recommended to the committee of the American Medical Association as a basis for legislative action to be modified to suit the needs and legal situations in each state, and the members of this Academy are urged to cooperate, both individually and collectively, with said committee to secure its enactment:

An Act to Prevent Inflammation of the Eyes of the New-born Babe, or So-called Ophthalmia Neonatorum.

SECTION 1.—The department of health of this state is hereby vested with power and authority to publish and distribute such information and instruction, to furnish such remedies, and to make such rules, regulations and ordinances as it may deem expedient to prevent the development of inflammation of the eyes of the new-born babe, or so-called ophthalmia neonatorum, in public hospitals or institutions in which midwifery is practiced either wholly or in part, and in connection with the practice of legally licensed midwives.

SEC. 2.—Said department of health is authorized to enforce its rules, regulations and ordinances at the expense of the state.

SEC. 3.—Any person violating any rule, regulation or ordinance of said department of health regarding the prevention of ophthalmia neonatorum shall be guilty of a misdemeanor.

This act shall take effect immediately.

ALVIN A. HUBBELL, Chairman,
ALBERT R. BAKER,
EDWARD JACKSON,
Committee.

From the Proceedings of the Thirty-fifth Annual Meeting of the American Public Health Association:

Resolved, That a committee of three be appointed by this Association to cooperate with the American Academy of Ophthalmology and Oto-Laryngology, the American Association of Obstetricians and Gynecologists, and other similar national organizations for the prevention of blindness. (Referred to the Executive Committee.)

Motion.—The Executive Committee recommends that the resolution calling for the appointment of a committee of three of this Association to cooperate with the Committee of the American Medical Association on Ophthalmia Neonatorum with reference to measures for the prevention of this disease be adopted, and that such a committee be authorized.

It was moved that the resolution be adopted and the recommendation concurred in. Seconded by several and carried.

From the National Congress of Mothers.

The infections and preventable disease of infants known as ophthalmia neonatorum or "baby's sore eyes" is the cause of nearly one-tenth of the blindness in the United States and has caused the destruction of the eyes of one-third of the children in the schools for the blind; and,

WHEREAS, This prodigal waste of human eyes is due to the neglect of simple sanitary precautions which should always be taken at the birth of the child; therefore, be it

Resolved, That the Congress of Mothers urge on the health authorities of the various states an aggressive and persistent movement to wipe out this prolific cause of blindness; and

Resolved, That the mothers in this Congress assembled pledge their support of all measures designed to protect the eyes of newborn children from needless infection, thereby saving from blindness many yet unborn.

Report of Committee on Section on Tropical Medicine.

To the House of Delegates, American Medical Association:

Gentlemen:—Your Committee on Section on Tropical Medicine begs leave to report that it regards the formation of a section on tropical medicine by the American Medical Associations as unnecessary at the present time, because papers and discussions on topics specially related to tropical medicine can be presented very well in existing sections, more particularly the sections on Practice of Medicine, on Hygiene and Sanitary Science, and on Pathology and Physiology. The committee recommends that, in the making up of the programs for the sessions of these sections, special attention be given to the adequate representation on the programs of matters of importance to tropical medicine. Respectfully submitted,

L. HEKTOEN, Chairman.
MAXIMILIAN HERZOG.
L. F. BARKER,
GEORGE DOCK,
W. C. GORGAS.

Report of Committe on Scientific Research.

To the House of Delegates, American Medical Associaton:

Gentlemen:—I have the honor to report that the Committee on Scientific Research has arranged that the following persons have grants to be applied to work which shall be reported at the coming session of the Association at Chicago:

Drs. D. J. McCarthy and M. K. Myers, Philadelphia, "An Experimental Study of Cerebral Thrombosis."

Dr. Karl Voegtlin, Baltimore, "Chemistry of the Parathyroid Glands."

Dr. Isabel Herb, Chicago, "A Study of the Etiology of Mumps."

Drs. R. M. Pearce, Albany, N. Y., H. C. Jackson and A. W. Elting, "A Study of the Elimination of Inorganic Salts in a Case of Chronic Universal Edema of Unknown Etiology with Apparent Recovery."

Drs. H. C. Jackson, C. B .Hawn and H. P. Sawyer, "A Comparative Study of the Physical Changes in the Blood in Relation to Opsonic and Phagocytic Indices and Cell Content Under Normal Conditions."

Dr. H. T. Ricketts, Chicago, "An Investigation of the Identity of the Rocky Mountain Fever of Idaho with that Found in Western Montana."

The amount of the grants in each case has been fixed at $200, as the character of the work and the expenses in each case seemed to justify this sum. The total amount exceeds the annual appropriation, but there has remained from previous years a credit of $800 which, with the current appropriation placed at the disposal of the committee, makes a total of $1,300.

Your committee feels that it is fortunate in being able to offer the support of the Association for the prosecution of work of the high character of that heretofore published on the grants of the Association and now offered for the coming year.

It has been possible to make the grants above mentioned this year only because there has remained a credit to the year from preceding years which has accumulated by reason of caution in the past in the matter of making grants. Unless the annual appropriation made by the Association to this committee is increased, it will not be possible to continue the same number of grants nor to treat the individuals receiving them with the liberality that is desirable. Your committee believes that the publications of the last few years and the reports made to the pathologic and physiologic section of the Association demonstrate that the moderate support given this committee by the Association has been more than repaid in useful scientific results. For the same reason it feels justified in requesting an increase of the appropriation to $1,000 a year. If the same policy is pursued as in the past, this amount of money can be very usefully employed.

Respectfully submitted,

ALFRED STENGEL, Chairman.
L. F. BARKER.
LUDVIG HEKTOEN,

Report of the Davis Memorial Committee.

To the House of Delegates, American Medical Association:

Gentlemen:—Your committee begs herewith to make a slow report of progress. At the last session of the American Medical Association your committee held a hopeful and, in a measure, enthusiastic meeting. It was voted to request of your honorable body an appropriation of $5,000 toward the Davis Memorial Fund. With this for encouragement, it was believed that the different state societies would actively cooperate and that the total of $30,000 proposed might be reported by the treasurer of the committee, to be placed in your hands for ultimate disposal. As you are aware, by reason of technicalities, action on our request although favorably considered by a large majority, was deferred until the present year. Unfortunately, the effect on the different members of the committee was most disastrous. A number resigned, and others determined to do nothing in their various states until they might follow the encouraging example of your delegated assembly. As a consequence comparative little work has been actively undertaken by your general committee during the last year. I am happy to state that Massachusetts has been a notable exception. Her apportionment to the fund, as estimated by your committee, was $500. As the representative of the state, I inaugurated an active campaign of personal solicitation, the fruitage of which has been over $700.

Doubtless much more would have been done in the different states but for the great financial depression which swept over the entire country early last autumn. This has had a paralyzing influence on public contributions, for such an object, quite as the San Francisco disaster, reacted on the profession during the former year. In the larger sense the late Dr. N. S. Davis needs no memorial. His memory is enshrined in the grateful remembrance of the entire medical profession of this country. Of the many really great men which America has furnished to the medical profession, the fruitage of his life service in no invidious comparison is second to none. It should be the grateful privilege of the entire medical profession of America to honor itself by the erection of some suitable memorial such as in the wisdom of your delegated body shall be determined on. We have been assured that the citizens of his own beloved Chicago will gladly contribute to this purpose. First in every public service for her welfare is perhaps the giving the abundance of the pure waters of the lake for the daily need of a thirsty city. Could anything be more appropriate than the reproduction of Dr. Davis in bronze, gazing in the calm assurance of the future on the broad expanse of the waters which he loved so well!

We bespeak your earnest cooperation at this present meeting and ask that beside the appropriation of the $5,000 which your committee confidently expects the Association will contribute to the fund, a request to the several state societies to appropriate during the coming year such sums as their judgment may warrant for this purpose. In this way your

committee feels that the entire medical profession of America would be represented in the memorial, as a voluntary expression from the many, rather than the solicited subscription of the few. Your committee also requests that they may be given power to fill vacancies. Respectfully submitted,

HENRY O. MARCY, Chairman.

BOSTON, May 25, 1908.

Report of Committee on Nomenclature and Classification of Diseases.

To the House of Delegates, American Medical Association:

Gentlemen:—I have the honor to submit the following report of the work thus far done by your Committee on Nomenclature and Classification of Diseases, consisting of Drs. J. Chalmers DaCosta, Philadelphia; Victor C. Vaughan, Ann Arbor, Mich.; W. A. N. Dorland, Philadelphia; Alexander Duane, New York, and myself.

It will be recalled that the appointment of the committee was authorized at the meeting of 1907 by the passage of a motion indicated in the following extract from the minutes:

"Dr. A. T. Bristow, New York, moved that the President appoint a committee of five on Nomenclature and Classification of Diseases, and that this committee cooperate with representatives from other bodies interested in order to send a suitable delegation to the Paris Commission in 1909, which revises the International Classification of Causes of Death and prepares for the U. S. Census of 1910."

For a time we were in no little doubt as to the precise intent of the motion. We supposed that the phrase "other bodies interested" meant only such bodies as might manifest an interest, also that the cooperation intended was to be only in the work of preparing for a suitable delegation to Paris. We, therefore, communicated with Dr. Bristow, who referred us to Dr. Cressy L. Wilbur, chief statistician of the Division of Vital Statistics of the Bureau of the Census, Washington, D. C., who, he said, had drawn the resolution.

Meantime Dr. Wilbur had communicated with us, generously offering us the utmost cooperation; so also had Dr. Wilmer R. Batt, Harrisburg, Pa., representing the American Public Health Association, and Dr. Robert L. Dickinson, Brooklyn, representing the American Gynecological Society.

We learned from Dr. Wilbur that he had intended to provide for wide cooperation on the part of the national medical organizations, not only in the matter of providing for a delegation to Paris, but also in the actual revision of the nomenclature and classification of diseases. We have, therefore, invited those bodies to take part in our work.

Individual members of the committee have already done a great deal of work on the proposed revision, but we have not been able to complete it in time to be submitted at the session of 1908. Our inability to do so will, we think, be readily understood when it is remembered that the Royal College of Physicians' Nomenclature of Diseases was the work of several years by a general committee of thirty-three members (for the third decennial revision), with twenty-four subcommittees.

We now respectfully recommend the adoption of the following resolutions, drafted by Dr. Wilbur:

1. *Resolved*, That the Nomenclature of Diseases of the Royal College of Physicians of London be recommended for the present use of American physicians in naming diseases and injuries in clinical reports and papers, morbidity and hospital returns, and for certificates of cause of death.

2. *Resolved*, That the International Classification of Diseases and Causes of Death be recommended for all official mortality and morbidity statistical reports.

3. *Resolved*, That the Committee on Nomenclature and Classification of Diseases present a report on the London nomenclature to the Association at its meeting in 1909, with such recommendations as may seem advisable for American usage, and with the assignment of each term indicated according to the International Classification.

4. *Resolved*, That a tentative reconstruction of the International Classification be framed on the basis of the foregoing report, and recommendations be drafted for submission to the International Commission of Revision.

5. *Resolved*, That inquiry be made as to the possibility of holding the next Decennial Revision of the International Classification at Washington in 1910 in connection with the International Congress of Hygiene and Demography.

6. *Resolved*, That after the revision of the International Classification in 1910, the Nomenclature of Diseases be recast in corresponding form, so that there will be available under a uniform arrangement and with precise agreement in the meaning of terms:
   (1) International Classification of Causes of Death.
   (2) International Classification of Sickness and Disability.
   (3) International Nomenclature of Diseases and Injuries.

If your honorable body sees fit to continue the present committee, we shall continue the work assiduously, confidently expecting to submit a completed nomenclature and classification at the session of 1909. If some other course seems to you to be preferable, we shall be glad to cooperate to the best of our ability as individuals. Very respectfully,

FRANK P. FOSTER, Chairman.

Report of Course of Postgraduate Study.

To the House of Delegates, American Medical Associaton:

Gentlemen:—Acting on the suggestion of Dr. J. N. McCormack, the suggestive outline of study which was submitted to this body at the Atlantic City session, 1907, was sent out, with an explanatory letter, to selected workers in the profession all over the country for suggestions and criticisms. In response, replies were received from leading men in every section, most of them merely commendatory of the plan, but many of them suggestive as to subjects for discussion, subject matter, plans, etc. Particular attention was called to the need for the study of materia medica and therapeutnes, most of the writers commenting favorably on the work of the Council on Pharmacy and Chemistry, and suggesting that our work be put in line with that. So far as possible, the suggestions and criticisms have been regarded in the elaboration of the course.

On account of lack of time the first year's outline could not be gotten out in one pamphlet for distribution by Sept. 1, 1907, so only the course for the first six months was published at that time. Two editions of this were printed by THE JOURNAL, the first, of 1,000, being in blank form, but the second edition, 2,000, was issued as the program of the Warren County (Kentucky) Medical Society, in order that those not familiar with the plans of the work could see how the topics might be used by the different teachers.

It was found that the printing of the complete (first six months) outline in THE COUNCILOR'S BULLETIN, September, 1907, was a great help in getting the course before the profession. The printing of the weekly elaboration in THE JOURNAL has also helped to bring it to the attention of many individuals and societies.

However, the greatest interest and enthusiasm has been found in those states visited by Dr. McCormack, the director being able to follow rather closely his itinerary by the requests for outlines and literature from the different towns and cities visited by him.

The outline for the second six months was printed in blank form in one edition of 3,000, for distribution, March 1, 1908. This complete outline was also printed in THE COUNCILOR'S BULLETIN, February, 1908.

The director has corresponded with county society officers and indivduals in thirty-nine states regarding the course, and he has been notified of its formal adoption by ninety county societies.

Five practitioners have been following the outline as a reading course of home study, since they were not able to meet with others as a club.

The first year's elaboration consists of twelve general subjects, but the suggestion of several clubs has been accepted and the outline for the second year, which is now in preparation, will consist of only ten subjects. In order that the course may be uniform, it is desired that all societies taking up the work for next year should begin the first week in September. In this way each society can take its summer vacation during July and August, and not be forced to miss any of the year's work. The outline for the second year will be ready for distribution by August 1, so that all can be prepared to begin active work the first of September.

Many inquiries have been received regarding the examinations and credits mentioned in the literature distrbuted; in response to this it may be said that there is in contemplation a regular quarterly examination, with proper credits, and a certificate or diploma on the satisfactory completion of the four years' course.

The great aim of the course of postgraduate study is the perpetuation of the county society, for on the active operation of this unit of the system of organization depends the success of the American Medical Association.

Experience has shown that the man who has taken part in the active work of a society following this course is best able to instruct others in regard to the plans, and enthuse them with the possibilities of following it systematically. On this account it is urged that councilors familiarize themselves with the plans and details of the course, that they may be enabled to arouse greater interest in the work in established societies, and give to the newly organized society something definite on which to carry forward its work. In addition, it is recommended that, if the greatest good is to come to the greatest number, the work of inaugurating and establishing in the proper manner the course of study should be assigned to those who have given time and study to the work, many of whom may be found in several states.

Respectfully submitted,

JOHN H. BLACKBURN, Director.

Medicolegal

General Doctrine with Regard to Communications to Physicians Being Privileged.

The Supreme Court of North Carolina says, in the personal injury case of Smith vs. John L. Roper Lumber Co., that, at common law, communications between patients and attending physicians were not regarded as privileged, and the matter has been very generally made the subject of statutory regulation.

The North Carolina statute, which substantially accords with the form more usually adopted in such legislation, provides as follows (Revisal of 1905, Section 1621): "No person, duly authorized to practice physic or surgery, shall be required to disclose any information which he may have acquired in attending a patient in a professional character, and which information was necessary to enable him to prescribe for such a patient as a physician, or to do any act for him as a surgeon: Provided, that the presiding judge of a superior court may compel such disclosure, if in his opinion the same is necessary to a proper administration of justice."

It is the accepted construction of this statute that it extends, not only to information orally communicated by the patient, but to knowledge obtained by the physician or surgeon through his own observation or examination while attending the patient in a professional capacity, and which was necessary to enable him to prescribe. Gartside vs. Insurance Co., 76 Mo. 446; Dilleber vs. Insurance Co., 69 N. Y. 256.

It is further held, uniformly, so far as the court has examined, that the privilege established is for the benefit of the patient alone, and that same may be insisted on or waived by him in his discretion, subject to the limitations provided by the statute itself: "1. That the matter is placed entirely in the control of the presiding judge, who may always direct an answer, when in his opinion the same is necessary to a proper administration of justice. 2. That the privilege only extends to information acquired while attending as physician in a professional capacity, and which information is necessary to enable him to prescribe for such patient as a physician." Wigmore, Section 2286—c.

In the present instance, the trial court having declined to exercise the discretion conferred by the statute, and having admitted the answer of the witness as a matter of right in the defendant, the correctness of the ruling depended on the interpretation put on the second limitation stated: "That the privilege only exists as to information which is necessary to enable the physician to prescribe for such patient as a physician."

Many of the courts have been very liberal in construing this statute in favor of the protection afforded the patient, some of them going to the extent of holding that, whenever a question has been asked by an attending physician, with a view of prescribing, the answer is privileged, however unimportant or irrelevant such answer may prove to be; but this court does not think that such a position can be sustained.

It must be remembered that the privilege did not exist at all at common law. It only arose by reason of the statute, and this statute having provided, as a condition, that the communication, to come within its terms, shall be necessary to enable the physician to prescribe, the court thinks this limitation must be given effect, and that it must rest in the legal discretion of the court to determine, from all the facts and attendant circumstances, including the answer itself, whether the information given was necessary for the purpose indicated.

There are no doubt many occasions when an answer to the question usually asked by a physician, "How were you hurt?" could and should be regarded and held as necessary to intelligent treatment. And when this is true, both the substance of the answer and the incidental details come within the protection provided by the law.

But the court does not think that by any fair or reasonable intendment could the statute be construed as extending to the answer admitted in this case, where a physician was allowed, not as a matter of discretion, but as a matter of law, to testify that he was called to attend the plaintiff, and before treating him asked him how he had received the injury, and that he replied that he was raising an engine with a jackscrew, and he kicked it or wrung it out, he could not tell which, causing the engine to roll back and crush his arm, etc. There was no dispute between the parties that the plaintiff's arm had been crushed by reason of having been caught between a falling engine and brick wall, and it could make no possible difference in the treatment whether this falling of the engine was occasioned by a defective jackscrew or by the plaintiff's conduct in negligently kicking the screw out of place at an inopportune time. This court is of opinion that the judge correctly ruled that the defendant was entitled to have the answer of the witness admitted in evidence as a matter of right, and that his construction of the statute was in accord with the weight of authority. Green vs. Railway Co., 17 N. Y. 201; People vs. Colle, 113 Mich. 83; In re Will Bruendl, 102 Wis. 45; Railway vs. Murray, 55 Kan. 336.

The decision of the Indiana courts relied on by the plaintiff (Pa. Co. vs. Marion, 123 Ind. 415), is based on an interpretation of Indiana statutes (Rev. St. Ind. 1881, Section 497), which is much broader in its terms, permitting a different construction.

Right to Practice Medicine Not Acquired.

The Supreme Court of Iowa says that the point most strongly urged by counsel, and the only debatable one presented by the record, in the case of State vs. Miller, was whether the defendant was entitled to practice his profession without a certificate from the board of medical examiners under that provision of Section 2579 of the Iowa Code which exempts from a compliance with the requirements of said statute all physicians "who have been practicing in this state for five consecutive years, three years of which time shall have been in one locality." This statute appears to have been first enacted in the year 1886, and was re-enacted in substantially the same form in the Code of 1897.

As a witness, the defendant stated that his early life was spent in Iowa; that he had practiced magnetic healing since he was 10 years old; that for about 16 or 17 years prior to the year 1899 he had lived in South Dakota, where he conducted a farm; that since that date he had lived six years in Iowa, the last four years of which had been in Waterloo; and that during all or most of this period he had been practicing the healing art.

The court does not think there was any error in excluding proof of the defendant's practice in Iowa for five years or more prior to his removal to Dakota about the year 1882. The exception made in the statute was very clearly intended for the protection of such citizens of the state as were then, and for five years prior to the enactment of the law had been, practicing medicine within this jurisdiction (Iowa). At that date the defendant was, and for four years had been, a resident of South Dakota, and the fact that he had at an earlier time practiced medicine in Iowa for five years did not give him any advantage under the provisions of the act, over a non-resident practitioner who never resided in Iowa.

In short, the court thinks that, when fairly construed, the words "who have been in practice in this state for five consecutive years" must be held to have reference to those resident physicians who have been in practice for five years immediately prior to the date of the enactment. Such is the obvious import of the language employed.

Lastly, the court thinks it hardly necessary to say that proof that the defendant had been engaged in the practice for five years immediately prior to his indictment could not avail to acquit him of the offense charged. Even if that fact be established, the law prohibiting such practice had been in force for a still longer period, and it would not do to say that the successful avoidance of prosecution for any length of time would operate to give the offender a vested right to continue his defiance of the law indefinitely.

A conviction of practicing medicine without first obtaining a certificate therefor from the State Board of Medical Examiners is affirmed.

What Is Being Under Care of Physicians.

The Supreme Court of North Carolina holds, in the case of Bryant vs. Metropolitan Life Insurance Co., that while a prescription given in response to a casual inquiry, or even after more careful examination, as an exceptional or isolated occurrence, may not suffice to show that the person receiving it is under such physician's care, within the meaning of a stipulation in an application for insurance, it is not required that a patient should be bedridden to constitute the relationship, and if the insured, being apprehensive of his condition, though up and around within the time named, consulted any physician, and intrusted his case to him for regular or continuous treatment, this would come within the representation, and, if false, would relieve the company from the obligations of the contract.

Current Medical Literature

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

Boston Medical and Surgical Journal.

May 9.

1 *Blood Pressure Observations in Eclampsia. G. S. C. Badger, Boston.
2 Two Cases of Atypical Leukemia. W. W. Barker, Boston.
3 *Toxin of Eclampsia. W. F. Boos, Boston.
4 Tent Ward at the Massachusetts General Hospital. L. H. Burlington, Boston.
5 *Histology of Multiple Myeloma; Comparative Study of Eleven Cases. H. A. Christian, Boston.
6 *Use of Human Milk in Typhoid Fever to Increase Bacteriolytic Power of the Blood. F. P. Denny, Brookline, Mass.
7 Bronchopneumonia: It Clinical Types in Relation to Etiology. C. H. Dunn, Boston.
8 Diagnosis of Circulatory Conditions by Temperature Measurements. T. J. Eastman, Boston.
9 Translation of Clinical Descriptive Terms into Their Histological Equivalents in Diseases of the Nose and Throat. J. L. Goodale, Boston.
10 Clinical Value of Estimation of Ammonia in Diabetes. H. W. Goodall and E. P. Joslin, Boston.
11 Study of the Functions of the Alimentary Tract for the Digestion and Absorption of Food by the Examination of the Feces in Clinical Work. H. F. Hewes and H. M. Adler, Boston.
12 Blood Cultures in Typhoid Fever with Comments on Hospital Treatment. E. P. Joslin and C. L. Overlander, Boston.
13 Tuberculin in Treatment of Localized Tuberculosis, Excluding Pulmonary Tuberculosis. R. I. Lee, Boston.
14 Hodgkin's Disease with Eosinophilia; Report of Case with Autopsy. M. Lincoln, Worcester.
15 *Sahli's Butyrometric Test of Gastric Function. F. W. Palfrey, Boston.
16 Occurrence of Steatorrhea Unassociated with Jaundice or Demonstrable Pancreatic Disease. J. H. Pratt and R. Hatch, Boston.
17 *Fact and Speculation Concerning the Nature of Typhoid Fever. M. W. Richardson, Boston.
18 Primary Sarcoma of the Pleura. W. B. Robbins, Boston.
19 Two Cases of General Streptococcus Infection Through Unrecognized Channels. W. A. Sawyer, San José, Cal.
20 *Origin of Urinary Casts. R. M. Smith, Boston.
21 Age in Its Relation to Arteriosclerosis and Death from Arteriosclerosis. W. H. Smith, Boston.
22 Tuberculous Peritonitis. A. K. Stone, Boston.
23 *Early Diastolic Heart Sound (So-called Third Heart Sound). W. S. Thayer, Baltimore.
24 Value of Lumbar Puncture in Syphilitic and Parasyphilitic Diseases of the Nervous System. G. A. Waterman, Boston.
25 Acute Yellow Atrophy of the Liver. F. W. White, Boston.

1. **Blood Pressure in Eclampsia.**—Badger discusses the relation of blood pressure to eclampsia and reports some observations made with a Janeway sphygmomanometer, from which he draws the following conclusions: 1. The blood pressure in eclampsia is high, and of diagnostic and prognostic importance. 2. In spite of improvement in subjective symptoms and increase in the quantity of urine, the blood pressure may remain high. 3. In which case the prognosis is grave, and labor ought to be induced. 4. The continuance of high blood pressure during the puerperium warrants a grave prognosis as to complete recovery.

3. **The Toxin of Eclampsia.**—Boos describes the earlier researches on eclampsia and his personal observations, begun in 1896 as assistant in pharmacology in the University at Strassburg, with the object of determining whether or not the blood of eclamptic women, or that of the eclamptic placenta, contained an active, non-proteid body, which might perhaps be isolated and recognized to belong to one of the established pharmacologic groups of poisons, or to form a representative of a new group. From these investigations he thinks it appears that there are certain cases of acute intoxication, due to a definite nonproteid active principle, which during life present the clinical picture of eclampsia. Much more experimental work will be necessary to enable us clinically to distinguish the cases in which the toxin is present from cases of eclampsia due to other causes, such as epilepsy and uremia.

5. **Multiple Myeloma.**—Christian summarizes his paper practically as follows: A histologic study of eleven cases of myeloma showed a striking similarity of cell structure with differences of minor degree. The common characteristics of the cells are a finely granular, slightly basophilic cytoplasm, an eccentrically placed nucleus, a nucleolus, centrosomes, a nuclear membrane and a tendency to mural arrangement of the chromatin. Certain nuclear changes, regarded as the results of degeneration, were commonly found. Mitotic figures occured in most of the cases studied, though they were absent in a few. Myelomata are to be classed with the tumors. They tend to remain localized in the bone marrow but almost all show evidence of invasive growth into adjacent structures, and in a few metastasis has taken place. These tumors then are malignant in the usual sense of the word, but their malignant properties are apt to appear relatively late in many cases. With these characteristics there is a greater resemblance of the tumor cells to bone marrow plasma cells than to myelocytes. In most of the cases reported by other observers the cells show these characteristics and these tumors form a group within which the cells of individual cases show no greater variation than occurs in other tumor groups.

6. **Human Milk in Typhoid Fever.**—Denny describes the details of an investigation to ascertain whether or not human milk would avail to increase the complement in the blood in typhoid, and thus destroy the bacilli. It is beyond doubt that human milk in nurslings greatly increases their immunity to infections, and it is held to be also curative in its effects when used in the treatment of infections. There is no known necessary limitation to the period of this action. Milk, therefore, was drawn under the superintendence of a trained nurse from a few nursing mothers who had an abundant excess of milk—both mothers and children being previously examined and found perfectly healthy. Precautions were taken to have the milk drawn in a cleanly way into sterile bottles and kept at the right temperature. It was given in typhoid cases to patients in the same way as cow's milk, and was readily taken. While it is impossible to determine whether the human milk modified in any way the course of the disease, the author concludes that it is desirable that the milk should be tried in a larger number of cases and a study made of the blood of the patients taking the milk. He propounds for further investigation the question: "Can the protective power against infections which human milk gives to the infant be of value to human beings after the first two years of life?"

15. **Sahli's Butyrometric Test.**—Palfrey reports an investition of the gastric function in 38 cases by means of Sahli's test and concludes that we have in this method a procedure which, in spite of a liability in some cases to complete failure, offers in other cases, at the price of an hour's extra work, information, probably at least roughly accurate, of a nature which we can not otherwise obtain. It must be admitted that the method lacks much of being an ideal application of the theoretical considerations on which it is based, but for certain cases, especially when there is question of impaired motility or of hypersecretion, and when circumstances demand that every effort shall be made to arrive at a diagnosis, this method is not without value.

17. **Typhoid Fever.**—Richardson discusses the mode of infection in typhoid fever and suggests that it is essentially a septicemia in which the intoxication occurs through the destruction of the bacilli by the body cells and fluids setting free intracellular poisons. The intensity and rapidity of the intoxication will vary directly as the rate of destruction of the bacilli and inversely as the efficiency of elimination. As to treatment in the absence of a true antitoxin we have had to fall back on various bacterial products having for their aim

the stimulation of the body tissues and the destruction of the bacilli. If this theory be correct the indication may be, on the other hand, in some way to check destruction of bacilli. This might be accomplished (a) by inoculation of the non-toxic typhoid substances to divert destructive agents from the living toxin-bearing bacilli; (b) by cold baths, to combat, by low temperature, rapid phagocytosis and bacteriolysis; or (c) by giving drugs which shall lower metabolic activity (quinin, etc.).

20. **The Origin of Urinary Casts.**—Smith reports a series of investigations by means of artificially induced nephritis in animals into the origin of urinary casts, substances used being uranium nitrate, potassium bichromate, trypan red, arsenic and cantharidin. He concludes that granular casts are the first to appear when the kidney is attacked by an irritant. Casts arise from the degeneration and necrosis of the cells of the tubular epithelium of the kidney. Entire necrotic cells may desquamate and at first remain distinct from one another, then become massed together, and finally formed into a definite plug, taking the shape of the tubule in which it is formed. The same process takes place with cell fragments and granular material derived from disintegrated cells. The casts are all granular at first and later become hyaline as they pass down the tubule in the urinary stream.

23. **The Early Diastolic Heart Sound.**—Thayer summarizes his observations on the so-called third heart sound as follows: In many healthy individuals, especially in the young, there is audible at the apex of the heart a slight third sound, which occurs in early diastole shortly after the second sound. This sound is commoner with a slow pulse; it is better heard in the recumbent posture and, especially, in the left lateral decubitus. It is sometimes more clearly audible during expiration. The sound is not infrequently associated with a shock which may be visible as well as palpable. The sound and shock occur synchronously with the protodiastolic elevation of the cardiogram which is usually prominent in these cases. These events cover a period of time represented on the jugular pulse by the later part of the katacrotic limb of the *v* wave and, generally, a part of the anacrotic limb of an *h* (Hirschfelder) wave (*b* wave of Gibson), which is usually present in these cases. This period corresponds closely to that occupied by the shoulder of the ascending limb of the cardioplethysmogram. Conclusive evidence as to the cause of this phenomenon is, as yet, wanting. From a consideration of the conditions observed in normal individuals, together with various apparently analogous manifestations occurring in disease, we are disposed to incline toward the hypothesis that the sound is produced by a sudden tension of the mitral and, perhaps at times, tricuspid valves occurring at the end of the first and most rapid phase of diastole.

Medical Record, New York.

May 9.

26 *Darwinism and Diabetes. R. G. Eccles, Brooklyn, N. Y.
27 Cerebellar Hemorrhage; Remarks on the Function of the Cerebellum. J. Collins, New York.
28 Nine Cases of Fracture of the Scaphoid. L. W. Ely, New York.
29 *The Pulse of the Nervous System. J. H. Dowd, Buffalo, N. Y.
30 *Management of Burns and Scalds in Infants and Children. M. Leale, New York.
31 Fifty Cases Tested by the Ocular Reaction for Tuberculosis. C. Graef, New York.
32 Success and Failure in Nauheim Cures. P. C. Franze, Bad Nauheim, Germany.

26. **Darwinism and Diabetes.**—Eccles points out that a momentary contemplation of any organism by an intelligent physician demonstrates that it is defended at every point by some more or less effective protective appliance—protective against micro-organisms. These are survivals from past struggles against disease, selected because they are life saving. The healing forces are as truly physiologic as those of assimilation and growth. He shows that Nature carries out its method of defense through many forms of attack, instancing purging in various diseases, thirst, fever, etc., as conservative measures of defense. In some respects we have learned the lesson taught by these observations, but the present attitude of the entire profession toward diabetes—hyperglycemia and glycosuria—is pre-Darwinian. He enters on an elaborate argument to prove that all attempts to check the excretion of sugar in diabetes only make the actual matter worse, and suggests that we try the Darwinian idea, and assume that the sugar is being wasted as a physiologic reaction to overcome some present irritant of exogenous origin. He points out that, no matter what the diet, sugar is still formed in the organism, and if necessary the tissues themselves are used up to form it, and when formed they seem determined to retain it in the system in spite of the most potent diuretic treatment. If, he says, the excess of sugar is of no use in the blood, how came all the organs to be working together to keep it there? He discusses the immediate causes of glycosuria, most of which are too well-established on a basis of clinical evidence to be rejected, and, citing Saundby, indicates them as certain injuries, diseased conditions, poisons. The fasting organism, also, is more susceptible to alimentary glycosuria, and exposure to severe cold and the ingestion of cold food or iced drink, according to Saundby, also tends to induce it. Even in vegetables cold produces an increase in sugar, so that the depressing effects of cold result in sugar formation throughout animated nature. Such facts lead one to the suspicion that past lines of treatment have been the very things that produced the dangerous and appalling symptoms that have all along been attributed to the presence of the sugar. In depriving patients of carbohydrates we are fighting against nature. In the absence of the unknown real irritant in diabetes the presence of sugar in large quantities is known to exist over long periods of years without producing any harm whatever, of which fact cases of Saundby and Hale White are cited in support. Further, where sugar cane is grown, where carbohydrate forms the staple food, diabetes is rare. Where the daily food, on the other hand, comes much nearer to the standard prescribed for diabetics—fish, flesh, fowl, with little room for bread and potatoes—diabetes is common. Great proteid consumption and diabetes stick as closely to each other as shadow to substance.

29. **Pulse of the Nervous System.**—By this term Dowd refers to the alkaline phosphates in the urine, which are precipitated only by an alkaline solution. These he considers indicate the state of the nervous system and form the keynote to all diagnosis, prognosis and treatment. Bedside examinations can be made in ten minutes, using preferably the urine secreted between 8 and 12 o'clock in the morning. In disease of the nervous system, which can not be accounted for, and in the rise of indefinite pains, the phosphatic index should be the guide for medication. When a positive cause has been removed and the phosphates do not rise under appropriate food and drugs, one should look to the assimilation; it may be faulty. Pregnancy, in the third week after conception and up to the third month, is positively shown by the condition of the fern-shaped leaves, a goodly number being found stripped of their feathers; otherwise they are almost perfect. The nervous system controls the whole economy, in health or disease, and if the cells are unduly excited or rendered almost useless by heavy withdrawal of their reserve, conditions may be aggravated or may cease to improve as the case may be.

30. **Burns and Scalds in Children.**—Leale discusses the various factors operating in the case of burns. In regard to treatment, it is of paramount importance to see that everything coming into contact with the wound is sterile. The wound must be carefully freed from all foreign substances, and vesications be carefully drained, as their serum, plus fibrin ferment, on coagulation forms an excellent culture medium. He recommends irrigation of the wound with an antiseptic solution, preferably a warm aqueous solution of peroxid of hydrogen (1 to 6 or 1 to 10), followed with an irrigation of warm normal saline solution or a 3 per cent. solution of boric acid. Protection of the wounded surface is the next important factor, and for this he prefers a thin ointment made fresh at the beuside with a pure sterile oxid of zinc powder and pure olive oil rendered sterile by boiling. When the papillary layer is involved, it is best protected by rubber tissue or silver foil in overlapping strips from half an inch to one inch wide, thus allowing the escape from the wound of discharge, which is immediately taken up by the overlying layers of gauze that are nowhere in contact with the wounded surface. He accentuates the great importance of constitutional treatment.

New York Medical Journal.

May 9.

33 *Restoration of Normal Balance of the Foot. E. G. Abbott and H. A. Pingree, Portland, Maine.
34 *Defective Vision and the Mentally Subnormal Child. S. W. Newmayer, Philadelphia.
35 Psychotherapy in the Treatment of Functional Neuroses. A. P. Herring, Baltimore.
36 Clinical Study of General Anesthesia. A. W. Blain, Jr., Detroit, Mich.
37 Abscess of the Frontal Lobe of Traumatic Origin. F. L. Taylor, New York.
38 Prevalence of Infections in Childhood. M. Osthelmer, Philadelphia.
39 Leprosy in the Far East. C. S. Braddock, Jr., Haddonfield, N. J.

33. Normal Balance of the Foot.—Abbott and Pingree take exception to the usual idea that the so-called arch of the foot is half an arch formed by placing the inner borders of the feet in apposition. From plaster casts taken from a skeleton and placed in apposition it is seen as a segment of two arches rather than as one. When the foot is used as a support the arch is held in place by muscles, fasciæ and ligaments. The usual eversion of the foot when used as a support must not be taken for a pronated foot in the sense of a deformity, as this position is caused chiefly by a rotation of the femur, to relieve the strain on the hip structure; and all the normal depression of the arch which is found under these conditions would take place just the same if the foot were inverted. The authors describe a series of experiments, performed by Dr. Bartlett, to illustrate the changes which occur in the arch of the foot when the muscles are severed, the amount of traction requisite to maintain the arch in a normal position, and the amount necessary to raise it to a normal position when depressed; also an experiment on the living subject, showing the alterations in the arch of a weak foot when it is changed from the position of rest to that of pronation. Any change from the normal in the structure and function of the foot to the pathologic of the weak foot must come through a disturbance of the arch. It is, therefore, necessary to consider only the arch and those structures which should control and maintain it. The changes in weak or flat foot are many, but those that prevent the normal maintenance of the arch after all the restriction to passive motion has been removed are the most concerned. The pathologic alterations in the individual ligaments, bones and joints are of little importance in this connection, as they are only incidental to the continued depression of the arch. It matters not in what condition we find the foot, it must first be brought to such a state that it is freely movable in all directions, i. e., to a condition of weak foot. The next step or change from a weak to a normal foot presents a far more difficult problem to solve; therefore, the changes which take place in the joints and ligaments, in so far as they retard motion, may be left out of consideration, and attention given to those parts which, through their pathologic changes, prevent a weak foot from being a normal one, namely, the ligaments and muscles. The ligaments are lax throughout the whole structure, and those muscles which control certain motions are lengthened, while others are shortened. On the inner side of the foot the anterior and posterior tibials are the principal muscles at fault. They are stretched much beyond their normal limit; are pulling at a great disadvantage whenever the foot is in use, and give no support when the foot is at rest. On the outer side of the foot the peronei are found to be shortened and often displaced; but, instead of being weakened in their action, both as a support and as a lever, they are strengthened through this displacement, and work most advantageously in increasing the deformity. It is not unusual to find the heel cord shortened sufficiently to prevent the calcaneum from being held at its normal angle, thereby restraining the arch of the foot from preserving its normal contour when the foot is flexed. The plantar fascia, the principal truss of the arch, is stretched and gives little aid.

34. Defective Vision and Mentally Subnormal Children.—Newmayer's article aims to arouse in the general practitioner a greater interest in his responsibility to school children suffering from defective vision. He believes that more than 75 per cent. of the cases of mental retardation are due to (1) disease of the brain with a greater or less degree of absent or undeveloped, untrained latent function; and (2) defects and diseases of the eye. The chief reason for not suspecting the eye as the seat of trouble is that the examiner always expects to find symptoms and signs to point to the eyes, forgetting that ofttimes gross changes may be present in these organs and no outward signs noticeable. Never exclude the eyes, except in the proved absence of ocular disease; the most thorough and systematic examination should be made for possible errors of refraction or abnormality of the binocular vision. The abuse of using the test card for absolute diagnosis, instead of as a valuable aid to confirm findings by instruments of precision, has been the cause of much deception. He discusses the proper use of the test card, and points out that many errors arise from not making allowance for the pupil's capacity for accommodation. Acute vision, rather than farsightedness, may account for a child being able to read the lines at a farther than normal distance. With regard to test types, having had occasion to refract the eyes of a deaf and dumb child, necessity led him to design a card composed of hands with various fingers extended and in various directions. The fingers were accurately measured to conform with the type of Snellen. The success met with encouraged him to use the card in all cases, especially children. It proved the most practical of all the charts. A child not only can imitate the hands, but can be allowed to count the fingers. Newmayer reproduces this chart of hands and also the chart of pictures. He suggests that in the principal school in each section there should be a closet fitted for dark room examination. Children who are too poor to obtain glasses should be supplied with them from a fund appropriated by the city; all books are supplied, and glasses are often more necessary than books.

Lancet-Clinic, Cincinnati.

May 2.

40 *Toxic Amblyopias, with Reports of Twenty-four Cases. L. Stricker, Cincinnati.
41 Nature of the Morphin Disease. C. W. Carter, Richmond, Ind.
42 Incentives to Study. L. Bloom, Cincinnati.
43 What Are the Essential Subjects of General Information that the Physician Should Have to Take His Proper Place in the Community? A. T. Perry, Marietta, Ohio.

40. Toxic Amblyopias.—Stricker makes a study of toxic amblyopias based on: Cases having their origin in wood alcohol, 2; chronic ethyl or grain alcohol, 4; chronic tobacco, 2; chronic alcohol and tobacco, 2; chronic alcohol and lead, 7; chronic lead, 5; gout, 5; and carbon bisulphid, 1. Other causes of amblyopia not included in the author's experiences are quinin and filix mas, arsenic, iodids, sulphids and chlorids. As a result of this study he feels that one is justified in classing the toxic amblyopias primarily as a cause of disease of the ganglion cells of the retina. In severe intoxication the ganglion cells die primarily, under which circumstances the acute form of the toxic amblyopias presents itself. The poison acts directly and with great force. In the chronic forms the nutrition of the ganglion cells is altered and the axis cylinders die first. The poison in an attenuated form acts directly on the ganglion cells of the retina or their axis cylinders, or indirectly, due to its action on the vascular system, more specifically in the production of arteriosclerosis which impairs the nutrition, not only of the retina but of the optic nerve. The article is well illustrated.

Archives of Internal Medicine, Chicago.

April.

44 *Rôle of Venous Congestion in Compensation of Tricuspid Insufficiency. W. J. Calvert, Columbia, Mo.
45 *Case of Tuberculous Ulcer of the Stomach. T. A. Claytor and W. W. Wilkinson, Washington, D. C.
46 *Serotherapy of Epidemic Cerebrospinal Meningitis. W. S Chase and M. L. Hunt, Akron, Ohio.
47 Presence of Antagonistic Substances in the Blood Serum in Early and Late Syphilis and in Paresis and Tabes. M. Wollstein and R. V. Lamar, New York.
48 Clinical Manifestations of Hemorrhagic Renal Infarct. G. Halperin, Chicago.
49 Effects of Prolonged Adrenalin Medication on the Human Circulatory Organs. H. Brooks and D. M. Kaplan, New York.
50 *Metabolism Experiments in Artificial Nutrition with Reference to Hypodermic Method. H. S. Carter, New York.

44. Tricuspid Insufficiency.—According to Calvert's observations, based on a case, the right ventricle appears to depend on venous congestion of a degree sufficient to maintain a pres-

sure which, with the addition of that contributed by the backflow, may offer resistance enough to act as a substitute for the insufficient tricuspid valve. Now, since the venous congestion depends on, is caused by, and represents the arterial pressure minus friction and flow, or in other words the activity of the left ventricle, it follows that in tricuspid insufficiency the left ventricle bears the brunt of that part of compensation which is played by venous congestion. As the flow of blood to the left heart is diminished, the work of the left ventricle is progressively lessened. The left ventricle, therefore, may remain of normal thickness or it may become atrophied. The large normal excess of arterial pressure over that in the capillaries renders it possible that even with diminished activity of the left ventricle and a lowered arterial pressure, there may yet be a rise in the venous pressure, a portion of which is utilized for compensation, the balance being consumed through friction and flow of blood. Thus, in tricuspid insufficiency the left ventricle and venous congestion play the same rôle as do the right ventricle and the pulmonary congestion in mitral insufficiency. In the latter condition the congestion of the auricle and the pulmonary circulation furnish the resistance against which the hypertrophied left ventricle works; in the former the congestion of the right auricle and the venæ cavæ favor the action of the hypertrophied right ventricle. The remaining factors have a temporary or minor influence on the compensation of insufficient mitral and tricuspid valves.

45. **Tuberculous Ulcer of Stomach.**—Claytor and Wilkinson discuss the historical data and mode of infection in tuberculous ulcer of the stomach, reporting a case in great detail. There are four avenues by which tuberculous infection might reach the stomach, namely, by direct infection of the mucous membrane through the lymphatics, through the blood stream and through the serous coat. The authors' studies show a case of tuberculous infection of the digestive tract, as evidenced by the limitation of the process to the stomach, intestine, liver, pancreas and lymphatic structures draining these organs. There existed a large single tuberculous ulcer of the stomach, with no involvement of other parts of the organ. This ulcer possessed the usual characteristics of a tuberculous lesion—ragged, thickened, undermined edges and the cribriform floor. This was confirmed by histologic examination and the findings of tubercle bacilli in the tissue. The connective tissue hyperplasia, absence of giant cells, and paucity of bacilli in the tissue, speak for an attenuated infective process. The route of infection seems to have been through the lymphatic system of the gastrointestinal tract. Pulmonary origin was absolutely excluded by the absence of any tuberculous lesions in the lungs or bronchial glands. This fact was determined with great care, both macroscopically and microscopically. As to whether the primary seat of infection was the ulcer in the stomach, from which the abdominal lymphatics became infected, or whether the lymphatic glands infected the gastric wall by contiguity, they are unable to say, but the latter seems the more probable.

46. **Epidemic Cerebrospinal Meningitis.**—Chase and Hunt report the case histories of twelve patients with epidemic cerebrospinal meningitis treated at the Akron City Hospital during the epidemic of 1907. All these patients were treated with the Flexner serum, the only other medication any of them received being an occasional hypodermic of morphin, with hyoscin hydrobromid when delirium and restlessness were pronounced. Three patients died and nine recovered, a mortality of 25 per cent., while of the patients outside, none of whom received the Flexner serum, one patient recovered and nine died, a mortality of 90 per cent. The cases in the hospital were for the most part fulminating and all of them were severe. In one of the fatal cases serum was not used until the patient had become pulseless; in another improvement following the first injection was very marked. While not building too much on this small number, the authors consider that the difference in mortality of those treated with and without serum is not due to a greater severity of type in the latter.

50. **Artificial Nutrition.**—Carter presents observations from which he concludes as follows: By the ordinary method of rectal alimentation it is practically impossible to nourish patients properly, or to maintain nitrogenous equilibrium. There are probably few, if any, exceptions to this rule. The hypodermic use of meat peptones and alkali albuminates is not feasible for artificial nutrition, on account of their great toxicity and tendency to cause local necrosis. Skimmed milk, peptonized for from one and one-half to three hours, may prove fatal if given hypodermically. It was found possible to furnish a dog with full nitrogenous requirements in the form of skimmed milk, peptonized for one and one-half hours, and injected hypodermically in gradually increasing doses; when on the larger amounts of food the weight remained almost stationary, the nitrogenous balance showed only 0.3 to 0.5 gram loss, the dog being apparently in good condition. For ordinary use, although successfully carried out in this instance, milk peptone, when injected hypodermically, must be considered dangerous, and until some method for avoiding the greater part of the natural toxicity of the product can be found, it should not be used for nutritive purposes in man.

Surgery, Gynecology and Obstetrics, Chicago.

April.

51 *Surgical Phases in Enteroptosis. J. G. Clark, Philadelphia.
52 *Arteriosclerosis of the Uterus. R. B. Slocum, Wilmington, N. C.
53 *Death of the Mature Fetus in Labor. H. M. Stowe, Chicago.
54 Fallacies of Intra-abdominal and Atmospheric Pressure as Supports of the Uterus and Abdominal Organs. C. W. Barrett, Chicago.
55 The Period of Awakening of Military Surgery. N. Senn, Chicago.
56 Surgical Aspects of Varix of Lower Limbs. R. Russ, San Francisco.
57 *Sequence of Pathologic Changes in Appendiceal Peritonitis. E. M. Stanton, Schenectady, N. Y.
58 *Breech Presentations; Analysis of 250 Cases at Boston Lying-in Hospital. R. L. DeNormandie, Boston.
59 Harrington's Solution in Treatment of Suppurative Inflammations of the Knee Joint. J. E. Summers, Omaha.
60 *Arthrodesis and Tendon Transplantation in Paralytic Club Feet. J. P. Lord, Omaha.
61 *Cyst of the Pancreas with Report of Operation. R. B. Hall, Cincinnati.
62 *The Abdominal Incision. C. U. Collins, Peoria, Ill.
63 Unusual Obstetric Complication Causing Removal of 126 Inches of Small Intestine. H. J. Donaldson, Williamsport, Pa.
64 Traumatic Case of Diaphragmatic Hernia. F. M. Sandwith, London, England.

51. **Enteroptosis.**—Clark discusses this condition, with illustrations from hardened sections and radiographs, and arrives at the following conclusions: No patient with enteroptosis should be operated on until medical and mechanical means have been exhausted without relief. Cases of ptosis due to congenital habitus will not be relieved by operation except in the rarest instances; they should not be considered, therefore, as amenable to surgical treatment. In order to arrive at an accurate estimate of the degree of ptosis the *x*-ray should be employed. In cases following childbirth, when the abdominal wall is very lax, thus destroying the equilibrium between the extra-abdominal and intra-abdominal forces, resection of the relaxed ventral tissue, by the method suggested by Webster, may give perfect relief, provided the diastasis has not been of such long standing that the abdominal organs are far below their normal levels. In the latter case, in addition to the Webster operation, it may be necessary to suspend the colon by means of the omentum, thus relieving the stomach of the weight of this organ, and at least temporarily supporting the stomach until there may be a natural shortening of its ligaments. In a simple gastroptosis without marked participation of the colon, the Beyea operation may be the one of preference. If the cardiac end of the stomach has been greatly dilated, forming a kink in the pylorus and a decided notch in the lesser curvature a no-loop gastroenterostomy may be necessary with closure of the pylorus. This is merely a suggestion, for the writer has had experience in only one case with this operation. In exaggerated cases of ptosis of the transverse colon, where a pendulous loop is formed which produces stasis of the fecal current, as well as tending to twist on itself, with symptoms of partial obstruction, nothing less than excision of the redundant loop with end-to-end anastomosis will effect a cure. In cases of redundant sigmoid, with more or less constant pain in the left side, associated with obstinate constipation a suspension of the sigmoid so as to pull it up out of this bad position in the pelvis may give entire relief. On account of the constant mobility of the sigmoid a recur-

rence may be noted. In exaggerated cases of redundant sigmoid attended with symptoms of extreme constipation, verging on to obstruction, a resection of the sigmoid may be advisable. In all cases a carefully fitted abdominal support or a carefully adjusted straight front corset should be worn after operation in order to give as much artificial support as possible.

52. **Arteriosclerosis of the Uterus.**—Slocum reports a case of uterine arteriosclerosis and the pathologic characters of the removed organ. He discusses the literature of the subject and concludes that arteriosclerosis of the uterus may cause hemorrhage at the same period of life as cancer would. The diagnosis from very early cancer is difficult. As to treatment, ergot, curettage and packing, and local applications are of no avail. In most of the cases reported a complete hysterectomy was done, rather than a supravaginal operation, because of the questionable diagnosis.

53. **Death of the Mature Fetus in Labor.**—Stowe investigates the death of mature children in labor or in a few hours after delivery where the death was traced directly to the birth, and tabulates 190 cases. He discusses the physiology of fetal life, especially in relation to respiration, and ascribes the death of the mature fetus in labor to one or more of the following conditions: Precipitate or prolonged labor; size of child or pelvic deformity; cord around the neck or prolapsed; dry labor; premature detachment of placenta. He discusses each of these in detail.

57. Abstracted in THE JOURNAL, Feb. 15, 1908, page 558.

58. **Breech Presentations.**—DeNormandie, as a result of an analysis of 250 cases, arrives at the following conclusion: Breech cases in primiparæ are common. Manual extraction occurs in one-half of all breech deliveries. The application of forceps to the after-coming head is at times a life-saving procedure. Lacerations of the maternal soft parts occasionally are very extensive. Injuries to the child are much more common than in vertex deliveries. Sepsis is no more common in breech than in vertex presentations. Breech presentations in contracted pelvis call for an early Cesarean section. The fetal heart in breech presentations should be listened to at short intervals after the rupture of the membranes. If the cord prolapses, immediate extraction should be done. A long labor, *per se*, is not an indication for operative interference. Early rupture of the membranes, without advance in the labor, is an indication for immediate operative interference.

59, 60, 62. Abstracted in THE JOURNAL, Feb. 1, 1908, pages 394 and 396.

61. Abstracted in THE JOURNAL, Jan. 25, 1908, page 311.

Journal of Nervous and Mental Disease, Lancaster, Pa.

April.

65 Hysteria in Children. J. J. Thomas, Boston.
66 Pathogenesis of Some Epilepsies. S. E. Jelliffe, New York.

Virginia Medical Semi-Monthly, Richmond.

May 8.

67 Importance of Cooperation of the Medical Profession in Municipal Health Work. E. C. Levy, Richmond.
68 Surgical Aspects of Tuberculosis. J. T. Buxton, Newport News.
69 Postoperative Abdominal Fistula. M. D. Delaney, Alexandria.
70 Treatment of Epilepsy. T. J. Hughes, Saltville.
71 Kuhn's Suction Mask for Treatment of Pulmonary Tuberculosis. G. J. Williams, Newport News.

Cleveland Medical Journal.

May.

72 Longevity in Its Relation to Preventable Causes of Early Death. D. S. Hanson, Cleveland.
73 Necessity for Consent Before Performing Operations and Autopsies. A. Clum, Cleveland.
74 Submucous Resection of Nasal Septum. I. J. Kerr, Cleveland.
75 Treatment of Ozena. W. H. Tuckerman, Cleveland.
76 Squamous-Celled Carcinoma of Cervix Uteri. A. J. Bower, Cleveland.

California State Journal of Medicine, San Francisco.

April.

77 Symptoms and Localization of Intestinal Obstruction Due to Carcinomata. R. L. Wilbur, Berkeley.
78 Treatment of Syphilis of the Eye. M. W. Frederick, San Francisco.
79 Evils of the Lodge Practice System. R. Brown, Santa Barbara.
80 Early Treatment of Cross Eyes. V. H. Hulen, San Francisco.
81 Impressions of the Killian and Guisez Clinics. C. G. Levison, San Francisco.
82 Bronchoscopy. E. C. Sewall, San Francisco.
83 General Paresis. G. D. Marvin, Agnew.
84 Posology. G. F. Hanson, San Francisco.
85 Indications for Operations on the Stomach. W. I. Terry, San Francisco.
86 Our Lack of Business Methods. K. C. Park, San José.
87 Pyelonephritis Complicating Pregnancy. S. T. Pope, Watsonville.
88 Experimental Feeding of Boracic Acid to White Rats. G. B. Worthington, Marysville.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

Lancet, London.

April 25.

1 Gresham Professors of Physic. F. M. Sandwith.
2 *Anatomy of the Long Bones Relative to Certain Fractures. R. Thompson.
3 So-Called Rheumatic Iritis. C. Higgens.
4 Influenza Bacillus as Cause of Fatal Endocarditis After Eight Years? F. J. Smith.
5 *Accuracy of Opsonic Estimations. L. Noon and A. Fleming.
6 Chronic Polycythemia. E. Cautley.

2. **Fractures.**—Thompson concludes his Hunterian lectures with the application of the principles enunciated in the preceding lectures, when dealing with fractures of the femur, to Colles' fracture, fractures in the region of the elbow joint, the upper end of the humerus and the clavicle, and the separation of the epiphyses. With regard to fractures of the clavicle he advances the following conclusions: 1. No pressure, or very little, is transmitted through the acromioclavicular joint, even when blows are struck on the outer edge of the acromion process. This absence of direct pressure through the acromioclavicular joint is explained by the presence of the trapezoid ligament and its attachment to the coracoid process of the scapula and the clavicle. 2. The pressure which passes through the coracoid process and the trapezoid materially affects the internal structure of the clavicle. 3. The obliquity of the adjacent surfaces of the acromioclavicular joint and the presence of the triangular fibrocartilage still further diminish shock. 4. By direct impinging of the coracoid process against the clavicle fractures of the clavicle between the conoid and the trapezoid ligaments are produced, and with such fractures not only is displacement possible, but impaction may also take place. 5. By bending the clavicle over the coracoid process fracture of the shaft of that bone may be produced.

5. **Opsonic Estimation.**—Noon and Fleming discuss the figures published by Reyn and Kjer-Petersen in the *Lancet*, March 28, in which the latter question whether the tuberculo-opsonic index in tuberculous patients really does present any specific variation from the normal. The authors outline the position of Reyn and Kjer-Petersen and combat it by essaying to show that the variations of normal sera are very small, while those of tuberculous sera are large. They further take exception to Kjer-Petersen's experimental methods.

British Medical Journal, London.

April.

7 *Cystic Forms of Xanthelasma Palpebrarum. J. Hutchinson.
8 Treatment of Puerperal Fever. A. K. Gordon.
9 Diagnosis and Treatment of Renal Mobility. G. Barling.
10 Uretero-Trigonal Anastomosis for Ectopia Vesicæ. J. S. Riddell.
11 Prolapse of the Inverted Bladder Through the Urethra. C. Leedham-Green.
12 Rare Case of Solitary Kidney. B. J. Ward.
13 Traumatic Rupture of the Kidneys. C. A. Griffiths.
14 Infections of the Urinary Tract, Especially Tubercle, Gonococcus, and B. Coli Communis. G. L. Eastes.
15 Diagnosis of Impacted Calculus in the Ureter. C. A. Ball.
16 Physiologic and Pathologic Effects Which Follow Exposure to Compressed Air. M. Greenwood.

7. **Xanthelasma Palpebrarum.**—Hutchinson holds that all the various forms of xanthoma and xanthelasma are undoubtedly allied and make up one family, being all caused by hepatic disorder, but are distinct from one another. Xanthelasma results from recurring functional disturbance, the generalized forms of xanthoma from organic, or at any rate long persisting, disease; while xanthoma diabeticorum is associated with

special disturbance of the glycogenic functions of the liver, is of only temporary duration, and is not usually attended or preceded by any changes on the eyelids. These changes are very common without jaundice or organic disease.

Medical Press and Circular, London.

April 22.

17 Internal Squint. P. Maxwell.
18 *Arrest of Postpartum Hemorrhage. G. de G. Griffith.
19 Sexual Hypochondriasis. F. W. Lowndes.
20 Ascites Relieved or Cured by Paracentesis. F. Hawkins.

18. **Postpartum Hemorrhage.**—Griffith has practiced and has taught since the sixties the method of compression of the abdominal aorta above its bifurcation now being advocated in postpartum hemorrhage. It may be done in two ways: 1. By laying the fingers of the left hand on the pulsating aorta and compressing it against the spine, the fingers being on one side of the aorta and the thumb on the other, the right hand grasping the uterus and making it contract as much as possible. 2. In some cases with the left hand grasping in its hollow the uterus, the edge of the palm of the hand can compress the aorta against the spine, at the same time keeping the uterus contracted in the hollow of the hand, the blood supply to the bleeding part being thus shut off entirely.

Clinical Journal, London.

April.

21 *Diet and Dietetics. F. J. Smith.
22 *Harmless Albuminurias. L. Williams.
23 Contusions of the Eyeball. N. B. Harman.

21. **Dietetics.**—Smith divides dietetics into (1) that in health, of (a) armies, prisons, etc., (b) ordinary individuals; (2) in disease (a) special, e. g., diabetes, gout, etc., (b) general. In this article he deals only with general dietetics in disease. He sums up the fundamental principles as follows: Do not feed sick people too much, and let their appetites general and special be in great measure the guiding rule in feeding. Laboratory experiments may help a little in predetermining digestibility of a given article, but they are not the same thing as the palate and the living stomach working in harmony. With regard to milk, it is a superstition that milk is the most easily digested article of consumption under all and any circumstances. While in some circumstances it may not be true that it is the most indigestible article of diet, Smith's clinical and postmortem experience considers it more nearly so in sickness than most people imagine. In acute illness thirst is a prominent feature; while milk to the palate is only a thirst quencher, to the stomach it may be burdensome. Therefore, leave the soda syphon or the water jug accessible to the patient, but not the milk, which should be added by the nurse, not to exceed two ounces to a drink. In gastritis, direct or indirect, milk may be a light diet, but it is not a nutritious one. As to soups, those made commercially should be avoided in sickness. He describes the making of beef tea and particularly allows its flavoring with sauces if desired. Of meat, tripe is the most digestible; the value of fish lies in the shortness of muscle fiber. With regard to predigested foods, he objects that they have commonly an unpleasant taste, and we can never be sure that the process has been carried just to the right point and not beyond. The best plan is to administer the digestive powder to the patient and give the food ten minutes later. Never disturb natural sleep for food. He discusses the application of these principles in relation to morbus cordis, acute nephritis and primary intestinal trouble.

22. **Albuminurias.**—Williams lays down the following propositions: Albuminuria may be due to a great variety of causes, both physiologic and pathologic, of which structural disease in the kidneys forms but a small, if highly important, minority. The majority of the cases are due either to altered blood states or to failure in the normal vasomotor mechanism. This failure may manifest itself in one of two directions. In the first, chiefly by some means so far undiscovered, the blood pressure in the splanchnic area rises, and is maintained at a sufficiently high level to induce a renal plethora and consequent albuminuria. Of such are the cases of hyperpiesis, as in the instance quoted. In the second place, owing to a local or general vasodilatation, the blood pressure in the splanchnic area falls to the point at which a renal stasis is induced. Of such are the cases of cyclical, postural and athletic albuminuria of which also instances are cited, cases which for the most part occur in young adults, in whom the vasomotor response is either undeveloped or for some reason is inadequate. Having regard to these facts, he ventures once more to insist not only that, of itself, albuminuria affords no evidence of renal disease, but that, of itself, it does not present even a reasonable suspicion of the existence of such disease, any more than, of itself, dyspnea presents a reasonable suspicion of cardiac disease.

Journal of Tropical Medicine and Hygiene, London.

April 1.

24 *The Campaign Against Malaria in Italy. Professor Celli.
25 Rôle of Filaria in the Production of Disease. W. T. Prout.

April 15.

26 Advanced Case of Ainhum, Sarcopsylla Penetrans as Cause of the Disease. The Tabanidæ of Angola. Simple Cyst of Thyroid Simulating Goiter. Sting of the Common Angolan Scorpion and Some Other Venomous Angolan Arthropods. Etiology of Elephantiasis Arabum. Fatal Bite of the Puff Adder. F. C. Wellman.
27 Fatal Case of Onyalai; History, Nature, Symptoms, Prognosis and Treatment. F. C. Wellman.
28 Six Deaths of Cantonese Infants from Overfeeding with Dried Persimmon (King Chee). C. M. Hanley.
29 A Large Fluke of Man Probably not Hitherto Described. Fasciolopsis Buski as a Parasite of Man in Hong Kong; Its Usual Host Probably the Pig. Id.

24. **Malaria.**—Celli discusses the principles of epidemiology of malaria and considers various epidemic types, the measures for combating malarial epidemics, legislation concerning malaria, the organization of the campaign against this disease, and describes the general result of the campaign in Italy, where from 1887 to 1895 over 15,000 people died annually from malaria. In 1895, when the campaign began, a certain attenuation set in, but still nearly 13,000 people died annually on the average until 1902, when the state administration of quinin was begun. That year the mortality fell to 9,908, and has fallen progressively year by year, until in 1906 it was only 4,871; and, further, the characteristic periodic recrudescences have no longer presented themselves. The campaign, then, consists: 1. In destroying or rendering inoffensive the mosquitoes *in externo*. This can be only partially effected, and is moreover costly, the means being physical, chemical and biologic—drainage, chemical means and screening to keep mosquitoes away from persons. 2. The destruction of the malarial parasites in the blood. This can be effected by quinin, for the effective administration of which the author gives the following principles: 1. Quinin, provided that it be administered daily, is in average and even therapeutic doses better tolerated, and for a longer time than one would suppose. 2. Quinin taken daily is always present in the blood, and thus prevents, instead of producing, quinism. 3. If given at longer intervals than three days quinism presents itself every time. 4. Few persons are intolerant of salts of quinin insoluble in water, if administered in average doses daily; and hemoglobinuria has never been encountered. 5. An insoluble salt, e. g., quinin tannate, is slowly absorbed, is generally atoxic, and is particularly indicated for children. 6. Quinin in the basic state is absorbed and acts well. An essential of tolerance is administration in agreeable form, e. g., comfits or chocolates. 7. He who takes quinin every day, and, therefore, has always a supply of quinin in his blood stream, can undergo with impunity inoculations of blood full of malarial parasites, and can expose himself without danger to bites by infected mosquitoes. 8. Arsenic and iron do not display any protective antimalarial action, either experimentally or chemically demonstrable. The author, therefore, suggests that in malarial localities the state itself should manufacture the quinin preparations, so as to sell them at the minimum price, or even distribute them free when necessary, and always in the more agreeable form of comfits. From the immunity thus effected it will be possible without the mortality of earlier times to arrive at agrarian sanitation and colonization of malarious districts, and to improve the alimentation, clothing, education, etc., of man, which augment the organic resistance and thus subdue malaria, even where anophelism can not be entirely extinguished

Annals of Tropical Medicine and Parasitology, Liverpool.

March.

30 Atoxyl and Trypanosomiasis. Sir R. Boyce and A. Breinl.
31 *My Experience of Trypanosomiasis in Europeans and Its Treatment by Atoxyl and Other Drugs. Sir P. Manson.

31. Trypanosomiasis in Europeans.—Manson reports 10 cases subjected to various methods of treatment, the atoxyl treatment prevailing, in which three patients are reported as dead, one as improved, five as apparently well, and one as well. He provisionally infers that trypanosomiasis in man is not necessarily a fatal disease. Atoxyl, he states, checks the clinical manifestations of the infection and causes the parasites to disappear from the peripheral circulation. Notwithstanding the continuation of atoxyl treatment, parasites may reappear at uncertain intervals, and generally concurrently with a rise in temperature. Nevertheless, if the drug be persevered with, the parasites ultimately disappear for good and do not return. Large doses of atoxyl are not necessary to secure this result and should be avoided, as they are apt to cause serious lesions, peripheral neuritis, optic atrophy, gastro-intestinal inflammation, and other toxic conditions which necessitate suspension of a valuable remedy. Trypanroth, mercury and parafuchsin seem ineffective in human trypanosomiasis. Antimony may have a therapeutic influence, but the hypodermic injection of sodium tartrate is impracticable. The prospects of atoxyl treatment he considers most hopeful.

British Journal of Children's Diseases, London.

April.

32 *Symptoms and Diagnosis of Juvenile Tabes. E. Jones.
33 *Inherited Syphilis as a Factor in the Etiology of Mental Defect in Children. G. E. Shuttleworth.
34 Gummatous and Phagedenic Ulceration of the Skin and Mucous Membranes in Inherited Syphilis. H. E. Jones.
35 *Congenital Syphilis in Infants. G. Carpenter.

32. Juvenile Tabes.—Under the heading of general diagnosis, Jones discusses the incidence, the age of occurrence, the value of the history of syphilis, the great frequency with which one or other parent shows signs of metasyphilis, either tabes or general paralysis, and the clinical features. The last refer partly to the course of the disease and partly to the relative frequency of different symptoms. Essential chronicity is the most striking feature; another feature is complication of the disease with general paralysis. As to frequency of symptoms, vesical symptoms are common, also eye symptoms, particularly amblyopia and headache, migraine and neuralgia. As regards lightning pains, there is great discrepancy in different observers' results. Jones' impression is that they occur about as often as in adult tabes, i. e., in nearly two-thirds of the cases. Girdle pains seem to be rare in juvenile cases. Sensory changes are found more frequently than might have been expected. Ataxy is rare, and when present is usually slight. Crises are more common than used to be thought. At present the most probable features distinguishing the symptoms of juvenile tabes from those of the form seen in adults seem to be the early and frequent appearance of urinary incontinence, of headache and of amblyopia, the comparative rareness of girdle pains, and the late onset of ataxy, which is usually little marked. He considers the differential diagnosis from pseudotabes, due to certain varieties of multiple neuritis and from hereditary diseases of the spinal cord. In the last the three main points to be relied on are: 1, Absence of Argyll-Robertson pupil; 2, absence of cerebrospinal lymphocytosis; 3, family arrangement of the cases. The most difficult diagnosis is between juvenile tabes and juvenile cerebrospinal lues. The main features of juvenile tabes are marked lymphocytosis, steady chronic course, and absence of some features characteristic of nervous lues. The Argyll-Robertson and Westphal signs suggest tabes. An intermittent irregular course, with sudden paralysis, incomplete, transitory and nonsymmetrical, and multiple implications of cranial nerves suggests cerebrospinal syphilis, as does also deterioration of the mental state.

33. Inherited Syphilis and Mental Deficiency.—Shuttleworth thinks that inherited syphilis is a more frequent factor in the production of mental defect and abnormality in childhood than can be demonstrated from institution statistics, and agrees with Fournier, that many cases of impaired mental development, such as are seen in children relegated to special schools, have their origin in an inherited syphilitic taint, normal brain development having been interfered with by osteitis causing cranial thickening, by meningeal indurations, or by localized cerebral sclerosis. But there is great need for more exact observations in these directions.

35. Congenital Syphilis.—Carpenter concludes his paper, discussing syphilis of the testicle, ovaries and internal genitalia and nervous system, and adds an appendix containing a case of coarctation of the aorta, one of congenital syphilitic ulceration of the larynx and interstitial pneumonia, and one of syphilitic cortical sclerosis (encephalitis) in an infant aged five and one-half months, accompanied by histologic report of the brain.

Indian Medical Gazette, Calcutta.

April.

36 Lithotrites. D. F. Keegan.
37 Epidemic Dropsy in the Darjeeling District. D. Munro.
38 *Probable Identity of Beriberi and Epidemic Dropsy. F. Pearse.
39 *Ipecacuanha in Hepatitis. J. G. Murray.
40 Calcium Chlorid and Its Action on the Coagulability of Blood. V. B. Nesfield.
41 New Test for Differentiation of the Bacilli of the Typhoid Group. G. C. Chatterjee.

38. This article appeared in the *Journal of Tropical Medicine and Hygiene*, March 2, 1908, and was abstracted in THE JOURNAL, April 11 1908, page 1227.

39. Ipecacuanha in Hepatitis.—Murray reports cases to enforce the value of ipecacuanha in that form of hepatitis following dysentery—cases that often drift into liver abscess—but before suppuration has taken place. The leucocyte count and the *x*-rays assist in the diagnosis. If such patients are thoroughly treated with ipecacuanha he believes that the formation of the abscess will be avoided. From the cases the dosage appears to be from 30 to 40 grains of ipecacuanha daily, sometimes in one dose, sometimes in divided doses.

Annales de Dermatologie, Paris.

March, IX, No. 3, pp. 129-192.

42 *Syphilomania and Syphilophobia. C. Audry.
43 Histologic Lesions Consequent on Applications of Gray Ointment. J. Pellier.
44 The Microsporum Lanosum of the Dog. Suis, Suffran and R. Sabouraud.
45 *Histologic Lesions Induced by Scarifications in Certain Dermatoses. L. M. Pauthier and C. Simon.

April, No. 4, pp. 193-256.

46 Histologic Study of the Eruptions of the New-Born (Dermites des nouveau-nés.) M. Ferrand.
47 *Syphilitic Dactylitis Simulating Tendon Sheath Tumor. J. Nicolas.

42. Syphilomania and Syphilophobia.—Audry regards severe syphilophobia as one of the most serious complications of syphilis. He has encountered about one case in every thousand of syphilis. One of his patients committed suicide under the influence of the phobia, fourteen years after primary infection. His obsession was that he was constantly contaminating others. Another patient was in good health, thirty years after mild infection, when a casual tinnitus and phosphaturia were ascribed by the attending physician to the syphilis, and a violent phobia was the result, with suicide in less than a year. Specific treatment should never be prescribed in these cases of tardy phobia, but the hygiene should be regulated with minute care, never leaving the patient a moment unoccupied. Hydrotherapy may be useful, but should not be pushed in severe cases. Traveling alone is contraindicated, as also staying in bed and sea voyages. High altitude, relative isolation, the intelligent companionship of some friend, and the persistent firmness of a competent physician are the best means of relieving and curing these patients.

45. Lesions Induced by Systematic Scarifications in Certain Dermatoses.—Cases of psoriasis, syphilis and other skin affections display a certain characteristic reaction to systematic scarifications, rendering this a useful means of clinical investigation.

47. Syphilitic Dactylitis.—The lesion was assumed to be tuberculous and was excised, but recurrence soon followed, simulating a sarcoma of rapid growth. Tentative antisyphilitic treatment caused rapid retrogression and complete recovery.

Archives des Maladies du Cœur, des Vaisseaux et du Sang, Paris.

April, I, No. 4, pp. 193-272.

48 *Jaundice of Hemolytic Origin. (Les ictères d'origine hémolytique.) F. Widal, P. Abrami and M. Brulé.
49 *Cardiac Symptoms in Course of Cancer in the Thyroid in Exophthalmic Goiter. (Accidents cardiaques au cours d'un cancer thyroïdien basedowifié.) J. Clunet.

48. **Hemolytic Jaundice.**—This form of jaundice may be congenital, displaying hereditary and familial tendency, in which case it is absolutely typical, or the condition may be acquired from various influences; the resulting affection then differs widely in different individuals. Both forms, however, show a bright yellow jaundice, quite different from the general dull tint of icterus from cirrhosis. The icterus also varies in intensity from time to time, emotions and fatigue accentuating it while it subsides during rest and in mountain air. Another striking feature is the absence of all signs of biliary intoxication. The stools are not clay-colored, and bilirubin is only in small proportions in the urine. The spleen is generally enlarged. Examination of the blood shows anemia with extremely fragile red corpuscles, large numbers of granulated reds and occasionally auto-agglutinating properties. Examination of the blood will reveal the hemolytic origin of the jaundice, and under iron the condition may be improved—an operation can not relieve the jaundice in these cases. In most of the cases reviewed the patients had been treated for jaundice of supposed hepatic origin without the slightest effect on the jaundice or the anemia, and two patients had been subjected to useless operations on the biliary apparatus. Treatment should be directed against the anemia, but bone marrow and arsenic have not to date displayed any efficacy, while iron has given great benefit in many cases. It is unable to arrest the hemolytic process; the reds continue to be fragile and to be destroyed, but the processes of repair are stimulated by the iron and the blood soon approximates normal. Everything should be avoided liable to lead to excessive destruction of the red corpuscles; the condition improves materially under the influence of rest and nourishing food.

49. **Cancer in an Exophthalmic Goiter.**—Clunet's patient was a woman of 54 with mitral insufficiency who had presented the symptoms of exophthalmic goiter for six months. No benefit was derived from heart tonics, salicylates or thyroid treatment, and the patient succumbed to pulmonary edema. Autopsy revealed an atypical epithelioma in the thyroid accompanied by relics of colloid and fibrous goiter. The parathyroid and suprarenal glands and hypophysis were hypertrophied; the characteristics of the hypertrophy differed from those of ordinary vicarious hypertrophy and seemed to be more of a response to intoxication. The valvular trouble, previously well compensated, began to cause disturbances almost at once as the cancer started to develop. The case suggests that exophthalmic goiter is due more to perverted than to abnormally excessive functioning of the thyroid.

Bulletin de l'Académie de Médecine, Paris.

April 14, LXXII, No. 15, pp. 413-476.

50 *Frequency of Gastric Cancer Following Ulcer. G. Havem.
51 *Action of Sodium Bicarbonate on the Gastric Secretion. M. Linossier and G. H. Lemoine.

50. **Frequency of Cancer Following Ulcer of the Stomach.**—Hayem found unmistakable signs of ulcer in 94 cases of cancer in the stomach, that is, in 22.34 per cent.

51. **Action of Sodium Bicarbonate on Gastric Secretion.**—Linossier concludes from his extensive research that sodium bicarbonate always stimulates the gastric secretions. In case of hyperchlorhydria the aim is to neutralize the excess of acid and avoid the stimulating effect. For this purpose the bicarbonate should be given in large doses some time after meals so that the food can leave the stomach before the excessive acidity of the chyme has been restored. He mentions that the bicarbonate has a remarkable soothing action on the tardy pain of digestion even in persons with secretory insufficiency. In hypochlorhydria the bicarbonate should be given to insure that the food is still in the stomach at the time when the acidity of the stomach contents is at the highest point under the stimulation of the drug and of the food itself acting on the secretory glands. The length of the proper interval before the meal depends on the size of the dose; the best results in his cases were obtained with an interval of two hours for a dose of 0.5 gm (7.5 grains); three hours for twice this dose, and four hours for a dose of 5 gm. (75 grains). Very small doses can be given even with the meals. The bicarbonate renders the stomach content alkaline, and under the stimulation of this the secretions gradually pour out to neutralize the alkalinity, and normal acidity is thus in time regained or even surpassed. If the chyme passes out of the stomach before normal conditions have been restored, more harm than good has been done. The stomach responds to the action of the bicarbonate in inverse proportion to the amount of hydrochloric acid secreted. The maximum stimulating effect was obtained with 5 gm. (75 grains) taken one hour before the meal. This dose would be too large if the secreting function is below par; one-tenth of this dose would be ample.

Presse Médicale, Paris.

April 15, XVI, No. 31, pp. 241-248.

52 Campaign Against Typhoid Fever. R. Debré.

April 18, No. 32, pp. 249-256

53 *How to Protect Against Dangers of the Roentgen Rays. P. Oudin and A. Zimmern.

April 22, XVI, No. 33, pp. 257-264.

54 The Semicentennial of Laryngology. M. Lermoyez.
55 Amyotrophy of the Aran-Duchenne Type. A. G. Apostolides.

53. **Dangers of Roentgen Rays.**—Oudin is president of the French Society of Electrotherapy, and he here reviews his practical experience with Roentgen apparatus and discusses their dangers and how to avoid them. He never trusts to the "units of radiation," but accepts the first reaction on the part of the skin as the criterion for treatment. He does not necessarily wait for this innocent "precocious erythem" or "prereaction," but he never goes beyond it, accepting it as a sign that the limits of tolerance have been reached. When cancer develops on an *x*-ray burn or dermatitis, he does not believe that there is anything specific in the *x*-ray cancer, but merely that the chronic hyperkeratosis induced by the Roentgen rays affords a favorable soil for the development of ordinary cancer. In a certain factory where anthracene is extensively used the workmen often acquire chronic hyperkeratosis very much like that induced by the Roentgen rays, and epitheliomatous degeneration is of frequent occurrence.

Semaine Médicale, Paris.

April 22, XXVIII, No. 17, pp. 193-204.

56 Apraxia of the Muscles of the Head. F. Rose.

Revue de Chirurgie, Paris.

April 19, XXVIII, No. 4, pp. 441-584.

57 Branchial Cysts of Pharyngo-Salivary Structure, Especially Presternal Cysts. M. Chevassu.
58 Rational Treatment of Congenital Dislocation of the Hip. (Luxations congénitales de la hanche.) P. Le Damany.
59 *Treatment of Anuria. R. Uteau. Commenced in No. 2.

59. **Treatment of Anuria.**—Uteau advocates operating at once, without waiting for symptoms of uremia; when they appear it is liable to be too late for operation to be successful. Even in the most desperate cases, however, the operation should be attempted; Chevallier has reported a cure on the fourteenth day. Experience seems to show that the chances are better when the kidney that has been affected last is the one operated on. He has collected and summarizes from the literature 14 cases of anuria with a single kidney, from obstruction by a calculus. All the patients died, some with and some without operative intervention, with two exceptions. In 12 other cases the anuria in the single kidney was due to pathologic changes in the organ and all the patients in this group succumbed except two. In 15 other cases the anuria was the result of bilateral obstruction of the passages and only 2 patients survived. In 8 other cases the anuria was evidently due to reflex action, either from the presence of calculi or of some neoplasm in the pelvis. Comparing the results of the various operations done in all these cases and in others on record, nephrostomy seems to be the operation which offers the best chances for success. In conclusion he reviews 10 cases of anuria due exclusively to reflex action either from the ureter, bladder or one kidney, or from the effects of contusion. Differentiation, the technic for operation and the

various indications are reviewed in detail. In a later study he intends to take up anuria from burns, intoxications and nephritis.

Berliner klinische Wochenschrift.

April 20, XLV, No. 16, pp. 773-820.

60 Study of Normal Histology of Suprarenal Cortex. (Nebennierenrinde.) O. Stoerk.
61 Primary Carcinoma of Appendix. S. Isaac.
62 *Uterine Myomata Under Thirty. (Gebärmuttermyome bei jugendlichen Individuen.) L. Landau.
63 *General Anesthesia by Suggestion. (Suggestivnarkose.) B. Hallauer.
64 Treatment of Bartholinitis with Bier's Hyperemia. T. Plass.
65 Three Cases of Idiopathic Cutaneous Gangrene in Infants. (Hautgangrän im Säuglingsalter.) P. Heim.
66 Action of Sulphur. (Schwefelwirkung.) Diesing.
67 Modes of Oxidation of Sugar. (Oxydationswege des Zuckers.) G. Rosenfeld.
68 Etiology of Tuberculosis. M. P. Ravenel.
69 Urine-Gelatine-Bile. Culture Medium for Typhoid Bacillus. (Die mit Galle beeinflusste Harngelatinmethode.) R. Güterbock.
70 *Importance of Close Work in Etiology of Myopia. (Bedeutung der Nahearbeit für die Entstehung der Kurzsichtigkeit.) W. Thorner.
71 Electrolysis with Cicatricial Stenosis of Esophagus. A. W. Zuberbühler.
72 Blood Findings on the North Sea Coast. (Blutbefunde an der Nordsee.) Häberlin.

62. Uterine Myoma Under Thirty.—Landau has encountered 42 cases of uterine myoma in women between 20 and 30. In three cases the women bore healthy children after excision of the myoma. In three other cases the myomectomy was required during pregnancy. In another series of cases the removal of the myoma did not interfere with an existing pregnancy. With one exception the patients recovered. In one case multiple myoma caused symptoms at 15.

63. General Anesthesia by Suggestion.—Hallauer states that he has been successful with a sham anesthesia: merely a few drops of chloroform and the imposed suggestion of sleep and absence of pain. He has been using this combination since he noticed that some of his patients sank to sleep before the anesthetic could possibly have produced this effect. He accompanies the various steps of his operation with some remark to explain them, as, for instance, when he begins to dilate the cervix, he says, "Now we will pack a little gauze in the vagina," or when he curettes, he says, "We will now apply hot water." He has applied this method in 40 cases and in the last 20 it was a success in all but 5 cases in which he had to continue with the ordinary technic.

70. Etiology of Myopia.—Thorner shows that reading is the severest tax on the eyes of all kinds of close work. The eyes in reading move from side to side and are jerked back again about six or seven times a second, so that in an hour they have to stand the strain of thousands of these jerking movements. Sewing or any other kind of continuous close work is by no means such a tax on the eyes.

68. This article appeared in the *American Journal of the Medical Sciences*, October, 1907, and was abstracted in THE JOURNAL, Nov. 16, 1907, p. 1717.

Deutsche medizinische Wochenschrift, Berlin.

April 16, XXXIV, No. 16, pp. 681-720.

73 Experimental study of Local Tetanus and Its Origin. C. Pochhammer.
74 *Pathogenesis and Operative Treatment of Prolapse of Rectum. J. Rotter.
75 *Treatment of Fractures in and Near Joints. Hinz.
76 Barberio's Spermatic Fluid Reaction. P. Fraenckel and R. Müller.
77 Serum Treatment of Pneumonia. (12 Fälle von Lungenentzündung im Kindersalter mit Römers Pneumococcenserum behandelt.) Crux.
78 Serum Diagnosis of Syphilis. (Zur Methodik des serologischen Luesnachweises.) J. Bauer.

74. Rectal Prolapse.—Rotter commends the Rehn-Delorme technic as fulfilling the conditions for correction of prolapse of the rectum better than any other technic. He has applied it in 3 cases, Rehn in 11, Delorme in 9, and Bier in 3. Rotter found that the circular fold taken up above the anus atrophied in one of his cases, leaving a tendency to recurrence, so that he advocates, in case of an unusually wide anus, making the opening narrower or else re-enforcing the floor of the pelvis according to Hoffmann's method.

75. Treatment of Fractures in or Near Joints.—Hinz reports a number of cases in which function was approximately restored by operative reduction and suture of the bones. He advocates a prompt decision as the earlier the operation the simpler it is and the better the results, although restoration of perfect function can scarcely be expected in such a delicate piece of mechanism as a joint after loss of one or more of its parts. The injury was fracture of the neck of the radius in four cases, of the internal meniscus in several and of the neck of the femur in others.

Medizinische Klinik, Berlin.

April 12, IV, No. 15, pp. 523-560.

79 Borderland of Orthopedic and Operative Therapy in Gynecology. O. Küstner.
80 *New Problems in Cancer Research. (Geschwulstlehre.) G. Schöne.
81 *Treatment of Syphilis. M. v. Zeissl.
82 Importance of Roentgen Rays for Internal Diagnosis. F. Wohlauer.
83 Spectroscope for the Blood. (Blutspektroskop.) O. Schumm.
84 Binding of Complement in Anatomic Diagnosis of Syphilis. L. Pick and L. Proskauer.

April 19, No. 16, pp. 561-608.

85 Progress in Laryngology since Türck and Czermak. O. Frese.
86 *What Can We Expect from Treatment of Laryngeal Tuberculosis? (Kehlkopftuberkulose.) E. P. Friedrich.
87 *Enlargement of Lymph Glands in the Neck. (Schwellung der Halslymphdrüsen.) C. Partsch.
88 *Graphic Registration of Blood Pressure and Sphygmobolometry. (Graphische Blutdruckbestimmung.) E. Münzer. Commenced in No. 15.
89 Connection Between Affections of the Orbit and Accessory Cavities of the Nose. (Zusammenhang der Erkrankungen der Orbita und der Nebenhöhlen der Nase.) O. Chiari and H. Marschik.
90 *Curative Tracheotomy in Laryngeal Tuberculosis. Hinsberg.
91 Radiography of the Organs in the Chest. M. Weinberger.
92 Action of Dead Tubercle Bacilli in the Human Body. H. Noesske.
93 Present Status of Agricultural Breeding of Plants. (Landwirtschaftliche Pflanzenzüchtung.) C. Fruwyrth. Commenced in No. 15.

80. Curability of Cancer.—Schöne says that the recent research on experimental cancer has shown that there is a possibility of spontaneous retrogression of cancer. The practical consequence is the encouragement for intervention in cases hitherto deemed inoperable. Some of the cancers are liable to be favorably influenced by some of the various measures at our command; certain types evidently respond better than others.

81. Treatment of Syphilis.—Zeissl advocates symptomatic treatment as the only principle to be followed. He thinks that it is wrong to give mercury before general symptoms appear or during the intervals between periods of symptoms. It has been his experience that relapses were more frequent and the course of the disease more severe after what is called preventive treatment than in cases in which treatment was not commenced until the general symptoms were evident. He thinks that possibly preventive general treatment interferes with the spontaneous defensive processes of the organism. Anemic and badly nourished persons do not tolerate mercury and iodids as well as the more robust, so after the first stage of incubation he gives iron and arsenic to strengthen the patient and prepare him for the specific course to follow, supplemented, possibly, by surgical treatment of the primary sore. It is important, he adds, to forbid alcohol and tobacco, but hydrotherapy is particularly useful in case of involvement of the nerves, spinal cord or brain. He does not begin with mercury until the general manifestations have reached and passed their climax. In his experience in southeastern Europe, among 700 syphilitics, he never found one with the nervous system involved, although many had had the disease for years and few had ever been adequately treated. He thinks this lack of nervous manifestations is due partly to the lesser use of alcohol and partly to the less strenuous life.

86. Treatment of Laryngeal Tuberculosis.—Friedrich insists on the importance of extremely early diagnosis and general treatment. He advises sanatorium treatment, believing that there is always a concomitant pulmonary process. The appearance of edema in the throat is a sign of profound infection, as a rule; it is liable not only to interfere with breathing, but also with nourishment. He reviews the various measures in vogue for treatment, endorsing the efficacy of lactic acid in particular, and advising a trial of phototherapy.

87. Enlargement of the Lymph Glands in the Neck.—Partsch states that when an infectious process in the teeth is propa-

gated to the glands it is usually tuberculous. He has encountered two cases of this kind in which a tuberculous tooth affection spread to the glands below and involved the jaw. An early diagnosis allowed operative treatment with complete recovery. The new differential tuberculin reactions will aid in early diagnosis.

88. **Sphygmobolometry.**—Münzer concludes his extensive research on the blood pressure and its graphic registration by calling attention to the way in which his findings harmonize with the teachings of physiology. They reveal also the existence of changes in the large vessels before any clinical changes in the heart are apparent, and before the peripheral vessels have become tortuous and the pulse waves high. He gives the details of twenty cases of various cardiac irregularities.

90. **Tracheotomy in Laryngeal Tuberculosis.**—Hinsberg reports four cases in which tracheotomy proved effectual in promoting the healing of a laryngeal tuberculous process. One patient is still wearing the cannula, three years since the operation. The processes in both larynx and lungs were healed or arrested. The results were equally favorable in three other cases, but another patient after local benefit is succumbing to his pulmonary process. The tracheotomy was borne without any essential reaction on the part of the lungs and the general health essentially improved as the larynx healed. The expulsion of the sputum requires more exertion than expectoration by the normal route, and the heart and lungs must be equal to this task, or otherwise conditions will be aggravated by the tracheotomy. It is important to determine whether the pulmonary process displays a tendency to spread or to heal, its character must also be considered and the conditions of the environment. A certain number of cases are adapted for this curative tracheotomy, but some patients shrink from the cannula. His four patients say the cannula gives little inconvenience.

Münchener medizinische Wochenschrift.

April 14, LV, No. 15, pp. 777-832.

94 *"Accidental" Heart Murmurs in the Pregnant. (Akzidentale Herzgeräusche bei Schwangeren.) R. Link.
95 Practical Value of Opsonic Index. Saathoff.
96 Marmorek Antituberculosis Serum in Surgical Tuberculosis. Hohmeier.
97 Epidemiology and Bacteriology of Epidemic Cerebrospinal Meningitis. H. Trautmann.
98 *Serum Reaction in Scarlet Fever and Measles. (Serumreaktion bei Scharlach und Masern.) J. Schereschewsky.
99 Composition of Whale's Milk. (Walfischmilch.) A. Scheibe.
100 Borderland of Gynecology. (Aus gynäkologischem Grenzgebiet.) F. Brewitt.
101 Treatment of Heart Affections. (Therapie der Herzkrankheiten.) R. Freund.
102 *Intermittent Claudication. (Dysbasia angiosclerotica, Erb.) K. Grube.
103 Phosphoric Acid in Urine, Phosphaturie, and Phosphatometer. Friedmann.

April 21, No. 16, pp. 833-888.

104 *Pneumonia Induced by the Friedländer Bacillus. F. Apelt.
105 *Serum Treatment of Streptococcus Infections. W. Zangemeister.
106 Determination of a Precipitable Toxin in the Urine and Stools of Infants. (Absättigbaren Toxin im Harn und Stuhl von Säuglingen.) W. Gellhorn.
107 *Biologic Differentiation of Milk. (Milchdifferenzierung.) J. Bauer.
108 Epidemic of Itching Affection Caused by Red Bug. (Juckepidemie bedingt durch Leptus autumnalis.) v. Notthasst.
109 Etiology of Acquired Asphyxia of the New-Born. A. Feuchtwanger.
110 Technic of the Keating-Hart Lightning Treatment of Cancer. F. Dessauer.
111 *Antituberculin in Blood During Tuberculin Treatment. H. Lüdke. Commenced in No. 15.

94. **Accidental Heart Sounds in Pregnancy.**—Link reports the findings in 330 pregnant women examined toward the close of pregnancy and after delivery. An accidental systolic murmur was evident in 41, that is, in 12.4 per cent. The murmur vanished after delivery in all but 3 of the women, and one of these was chlorotic. Mitral insufficiency was discovered in 9 out of the 330; when the murmur was loudest at the apex and diminished in intensity toward the pulmonary artery, mitral insufficiency was assumed and confirmed by the course of the case. Restriction of the murmur to the pulmonary artery and its vicinity speaks strongly in favor of its accidental nature. Still more important for the differentiation is the accentuation of the second pulmonary sound in case a lung affection can be excluded. This is strong presumptive evidence of mitral insufficiency. The accidental heart sounds are probably due to mechanical crowding up of the heart with more or less kinking of the arteries. He failed only once to differentiate the accidental murmurs correctly.

98. **Serum Reaction in Scarlet Fever and Measles.**—When serum from an individual with secondary syphilis is poured on top of serum from an individual in the later stages of syphilis, a ring forms at the line of contact, as in Heller's ring test. This ring is not observed with serum from persons free from syphilis. Similar tests with serum from persons with scarlet fever in its incipiency and late into convalescence or later, and with serum from measles patients during and after the disease, have given similar findings. The reaction seems to be specific and to be due to the interaction of a precipitin in the early serum and a substance in the late serum which Schereschewsky calls precipitinogen. The findings with 30 scarlet fever patients, 25 non-scarlatinal patients and 10 with measles, all seem to speak in favor of the specific character of the reaction and its value for differentiation.

102. **Intermittent Claudication.**—Grube gives the details of four cases of angiosclerotic dysbasia with no pulse in the foot. Three of the patients were diabetics and one had contracted kidney. Abuse of tobacco was evident in two cases. These are the only diabetics with intermittent claudication out of 2,000 diabetic patients whom he has examined since 1899, seeking for traces of this affection.

104. **Pneumonia from the Friedländer Bacillus.**—Apelt reports 10 cases. In one a cavity in the lung was opened about two weeks after the beginning of the pneumonia, with the evacuation of an abscess and recovery of the patient. In another case the cavity was opened on the fourth day as the symptoms were severe, but the operation was unable to save the patient.

105. **Antistreptococcus Serum Treatment.**—Zangemeister marvels that the uselessness of ordinary antistreptococcus serum therapy has not been more vigorously proclaimed. His experimental research has shown that the antiserum is of no use unless derived from some closely allied species. Horse or rabbit serum will protect mice and rabbits against all strains of streptococci, but it has no action on man and monkeys. On the other hand, an antistreptococcus serum derived from monkeys has no action on mice or rabbits, while it is effectual for monkeys and probably will prove so for man. Antistreptococcus serum should be tested on monkeys rather than on any other animals, as the monkey is closely allied to man, while the monkey is as refractory to horse immune serum as man. He thinks it a significant fact that the horse immune serum proved not only useless in his tests, but was evidently directly responsible for the deaths of the monkeys. This occurred constantly in both series of tests and with each specimen of the horse immune serum, similar to the injurious effect of the monkey immune serum on the mice. The foreign serum evidently has a toxic action, and even seems to promote the streptococcus process. This may occur also in other infections. The damage from large doses of serum from another species may paralyze any possible beneficial action.

107. **Biologic Differentiation of Milk.**—Bauer uses about 15 liters of breast milk, drawn to give to infants who are unable to suck or for other reasons can not be given to a wet nurse. He has found that the deviation of complement test will reveal adulteration of the milk with any other kind of milk. With the aid of a titrated serum it is even possible to determine the amount of the foreign milk that has been added.

111. **Tuberculin and Antituberculin.**—Lüdke found antituberculin in 17 out of 31 patients taking tuberculin treatment. In these cases the injections of tuberculin did not induce any reaction. When there was much reaction to the injection of tuberculin no antituberculin could be found in the serum. No antituberculin was found in a number of non-tuberculous patients under the influence of tuberculin.

Wiener klinische Wochenschrift.

April 9, XXI, No. 15, pp. 517-552.

112 *Thermo-penetration. W. v. Preyss and C. Radonicic.
113 Influence of Athletic Competition on Heart, Kidney, Blood Pressure and Temperature. (Einfluss sportlicher Extremleistungen.) R. Beck and E. Epstein.

April 16, No. 16, pp. 554-606.

114 The Vienna Clinic for Nose and Throat. O. Chiari.
115 Modification of Chimney Cannula for Treatment of Cicatricial Laryngeal Stenosis. (Schornsteinkanule.) L. Harmer.
116 Small Gumma Syphilid of the Throat. H. Marschik.
117 Suppuration in Maxillary Antrum with Necrosis. (Zur Klinik der mit Knochennekrose einhergehenden Kieferhöhleneiterungen.) E. Kellner.
118 Diverticulum in the Pharynx. P. Albrecht.
119 Treatment of Postdiphtheritic Stenosis of Larynx and Trachea. H. Koschier.
120 Dental Empyema of Maxillary Antrum. M. Hajek.
121 Malformation of the Larynx. (Missbildungen des Kehlkopfes.) F. Hutter.
122 Diagnosis of Acute Lymphoid Leukemia in the Throat. F. Hanszel.
123 Laryngoscope in the Service of Vocal Music. (Kehlkopfspiegel im Dienste des Gesanges.) L. Rethi.
124 Exploratory Puncture of Maxillary Antrum Through the Nose. (Probepunktion der Kieferhöhle vom unteren Nasengange aus.) A. Heindl.
125 Unilateral Spasm of the Larynx. (Einseitiger Kehlkopfkrampf.) K. M. Menzel.
126 Folds and Congenital Diaphragm in the Larynx. (Kongenitale Kehlkopfdiaphragmen und Faltenbildungen.) E. Glas.
127 Genesis of Cholesteatoma of Accessory Cavities. O. Kahler.

112. Electric Application of Local Heat.—Zevnek observed a few years ago that high-frequency currents of a certain wave length did not cause any other sensation in the human body but that of warmth, and that these high-frequency currents did not remain at the surface of the body, but flowed through from one electrode to the other. Currents with comparatively low tension and high amperage were found to be able to induce warmth in the deeper parts of the living body without other physiologic action. He has been applying this thermopenetration, as he calls the procedure, at Ortner's clinic in various internal affections with favorable results, especially in gonorrheal arthritis and muscular rheumatism. The effect can be increased by combining it with the Bier hyperemia technic. He gives the particulars of 10 cases and states that the rapidity with which the pain is arrested is amazing; this has never failed in any case. To exclude suggestion, the patients were tested with and without the current turned on, and all those who spoke of improvement or warmth when the current was not passing are excluded from the group of cases summarized. The affection was chronic and had resisted other measures. In this article von Preyss and Radonicic report the experiences to date.

Zentralblatt für Chirurgie, Leipsic.

April 18, XXXV, No. 16, pp. 489-520.

128 *Symptomatology of Gastric Cancer. (Magenkrebs.) B. Przewalski.
129 Plastic Restoration of Defect in Bile Duct with Gall Bladder. H. Liebold.
130 Resection of Muscle and Tendon Tissue in Thumb on Account of Tuberculosis. Recovery of Complete Function. K. v. Schiller.

128. Symptomatology of Gastric Cancer.—Przewalski calls attention to the contraction of the middle intercostal spaces on the right side of the thorax as an early sign of carcinoma of the stomach. It is probably a reflex contraction from the nerves of that part of the stomach wall most frequently affected with malignant disease. In the latest stages all the intercostal spaces are contracted on both sides, as also in case of cancer of the esophagus. He examines for this contraction with his finger tips between the axillary lines.

Zentralblatt für Gynäkologie, Leipsic.

April 18, XXXII, No. 16, pp. 505-544.

131 *Sellheim's Extraperitoneal Cervical Cesarean Section. (Sellheim's Kaiserschnitt.) O. Küstner.
132 Treatment of Retention of Membranes. (Elhautretention.) E. Engelhorn.
133 *Heating Arrangement for Operating Table. (Heizvorrichtung.) P. v. Kubinyi (Budapest).
134 Nomenclature of Gynatresia. L. Pincus.
135 Osteoplastic Enlargement of the Pelvis. (Osteoplastische Beckenerweiterung.) P. Mathes.

131. Sellheim's Extraperitoneal Cesarean Section.—Küstner has applied Sellheim's extraperitoneal section in two cases and found it extremely satisfactory. The laparotomy and entire intervention are outside the peritoneum. He thinks it is the preferable technic in all cases in which infection is suspected. It was mentioned in these columns March 14, page 926.

133. Heating Arrangement for Operating Table.—Kubinyi does not warm the table, but only the air around and beneath it. An air chamber below, heated with about 20 incandescent lights, accomplishes this.

Policlinico, Rome.

April 19, XV, Practical Section, No. 16, pp. 485-516.

136 Surgery of the Large Vessels of the Neck. (Chirurgia dei grossi vasi del collo.) V. Bernabai.

Hospitalstidende, Copenhagen.

March 4, LI, No. 10, pp. 249-280.

137 *Deficiency of Amniotic Fluid and Absence of Kidneys. Hauch.

March 18, No. 12, pp. 305-336.

138 Malformation of Hairs. (Lepothrix.) H. Boas.

March 25, No. 13, pp. 337-368.

139 *Microscopic Retention in Stomach. S. Kemp.

April 1, No. 14, pp. 369-400.

140 Differential Tuberculin Test. (Vurderingen af den v. Pirquet' ske Tuberkulinprove.) A. Bartholdy and G. E. Permin.

April 15, No. 16, pp. 433-464.

141 Astasia-Abasia. A. Wimmer. Commenced in No. 15.

137. Deficiency of Amniotic Fluid and Absence of Kidneys.—Hauch adds a fourth to the three cases on record of otherwise apparently normal children born without kidneys. The child lived thirty-six weeks. He thinks that this case shows that the kidneys are not so indispensable for the metabolism as generally supposed, but that they are important for the production of the amniotic fluid, as there was a strikingly small amount in this case.

139. Microscopic Retention.—Kemp has been examining 75 patients in respect to microscopic retention, and announces that it can not be pathologic, as he found it in a large number of healthy individuals. The normal stomach, as a rule, shows no traces of retention twelve hours after the test meal. In chronic gastritis microscopic retention seems to be almost constant. In other stomach affections there may or may not be retention; motor insufficiency, of course, favors it, but hypersecretion seems to have the opposite effect.

Hygiea, Stockholm.

March, LXX, No. 3, pp. 225-320.

142 *Treatment of Milk with Peroxid of Hydrogen. (Behandling af mjölk med vatesuperoxid.) O. Medin.
143 Direct Visual Examination of Rectum and Sigmoid. C. O. Olin
144 Trichomonas in the Stomach Content. (T. hominis i maginnehåll hos människa.) B. Henning.

142. Imperfect Sterilization of Milk with Peroxid of Hydrogen.—Medin states that he has encountered six or eight cases of typical infantile scorbutus in children fed with milk sterilized with peroxid of hydrogen according to Budde's technic. Bacteria were also found numerous in the milk. He thinks it is probable that this treatment destroys one of the enzymes in the milk.

Books Received

Acknowledgment of all books received will be made in this column and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

FOURTH ANNUAL MESSAGE OF JOHN WEAVER, MAYOR OF THE CITY OF PHILADELPHIA, WITH THE ANNUAL REPORTS OF THE DIRECTOR OF THE DEPARTMENT OF PUBLIC HEALTH AND CHARITIES AND SUPERINTENDENT OF THE BUREAU OF CHARITIES FOR THE YEAR ENDING Dec. 31, 1906. Paper. Pp. 175. Philadelphia: Dunlap Printing Co., 1907.

NEW HAMPSHIRE PHARMACEUTICAL ASSOCIATION PROCEEDINGS, Thirty-fourth Annual Meeting Held at Magnolia, Mass. Paper. Pp. 107. Penacook: W. B. Ranney, Printer, 1908.

DIE LEHRE VON DER INTURATION. By Prof. Dr. J. Von Bókay. Paper. Pp. 250, with Illustrations. Price, $2.50. Leipzig: Verlag von F. C. W. Vogel, 1908.

THE STANDARDIZATION OF TETANUS ANTITOXIN. By M. J. Rosenau and J. F. Anderson. Paper. Pp. 59. Washington: Government Printing Office, 1908.

THIRTY-FOURTH ANNUAL REPORT OF THE MEDICAL DIRECTOR OF THE CINCINNATI SANITARIUM FOR THE YEAR ENDING NOV. 30, 1907. Paper. Pp. 16.

QUARTERLY BULLETIN ILLINOIS BOARD OF CHARITIES, MAY, 1908. Paper. Pp. 63. Springfield: Phillips Bros., State Printers, 1908.

POCKET DICTIONARY of the American Press for 1908. Flexible leather. Pp. 810. Chicago: Lord & Thomas.